

MAY 28 1910

PRE-CONVENTION ISSUE

VOL. VII. NO. 4

\$1.00 A YEAR

MAY, 1910

SELLING ELECTRICITY

The Magazine of Electrical Progress

VALENTINE SIGNS possess every good quality that any other signs have, and one thing more: ADVERTISING VALUE.

If you want signs that will sell goods
for your merchants as well as sell
current to them, get in touch
with the

VALENTINE ELECTRIC SIGN COMPANY

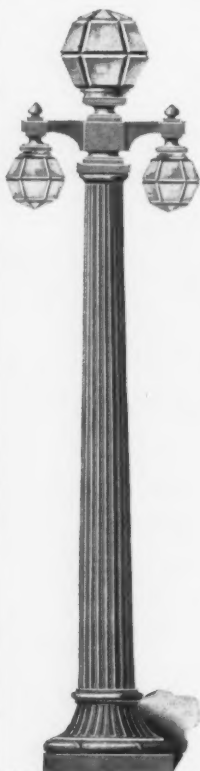
20 North California Avenue, Atlantic City, N. J.

Copyright, 1910, by THE RAE COMPANY



Jandus Luxolabra

For the City Beautiful



Luxolabra No. 53A—3 lights
Luxolabra No. 55A—5 lights
Fitted with Jandus Art
Globes.
Pressed Steel. Copper
or Bronze.

Send for Jandus Central Station Campaign

LUX
OLABRA

We have advanced the sale of Ornamental Lighting Standards from so many pounds of cast iron to so much illumination; in other words, we were the first to place this business on a practical Central Station basis. Our experts co-operate with Central Station Contract Departments.

Send for Catalogue 40 Jandus Luxolabra.

The Jandus Electric Co.
Cleveland, Ohio

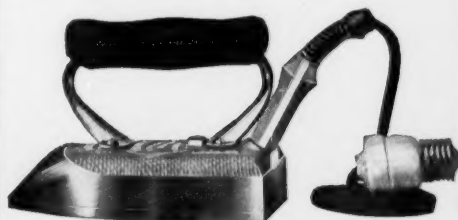
Lest You Forget!

Spring starts March 21st

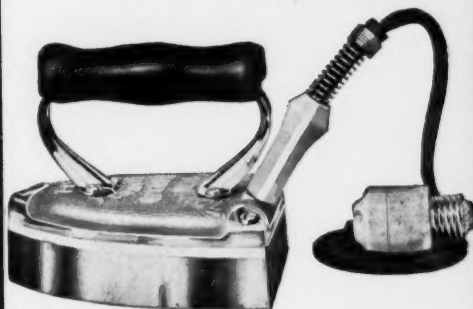
Summer starts June 21st

Then is the time to sell to your household customers "AMERICAN" electric irons.

Now is the time to order them from us.



"AMERICAN" SUPERIOR—6 lbs.



"AMERICAN" STEEL CLAD—7 lbs.

There are no Electric
Irons so good as

"AMERICAN" ELECTRIC IRONS

Manufactured by

American Electrical Heater Co.

Detroit, U. S. A.

Oldest and Largest Exclusive Makers in the World

May, 1910

May, 19

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May, 1910

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The Central Station Development Company

are experts in the application
of Modern Commercialism to
Central Station Conditions

"New Business" Departments Created and Maintained



Our Departments

Advertising
Auditing and Bookkeeping
Engineering
Examinations with complete reports
Garage — Electric
Isolated Plants
New Business

Operating
Plant Supervision — Permanent
Plant Supervision — Temporary
Purchasing
Special Campaigns
Signs — Electric
Street and Boulevard Lighting

*Expert Investigation of
Central Station Revenue Conditions*

Address, CLEVELAND, OHIO, U. S. A.

Copies of our handbook "Central Station Stimulation" may be obtained at our Booths, Nos. 91 and 92, at Electric Light Convention, St. Louis, May 23-28, 1910

In writing to advertisers, mention "Selling Electricity"

SERVICE

OF THE

CENTRAL STATION DEVELOPMENT COMPANY

Expert Knowledge

TO make an intelligent and comprehensive report with recommendations for improvement of any department of a Central Station, obviously implies expert knowledge of the department or departments to be passed upon, with the facilities at hand to render them effective; this is the status of The Central Station Development Company to-day.

Commercial Supervision

We are equipped, not only to develop and put into effect individual campaigns, but to establish as well, New Business Departments, with complete records and an efficient working system which will enable Managers who install them to institute thereafter business methods susceptible to sustained effort in any direction which will most quickly yield increased connections and revenue.

In writing to advertisers, mention "Selling Electricity"

Supervision of Special Campaigns

We will put into effect the exploitation of any special apparatus or device which Central Stations may desire to push, supplying an expert to make preliminary survey and the services of a Commercial Expert, throughout the campaign or during part of it, as may be desired.

Campaign Literature

We will furnish any additional or extra campaign literature for these special efforts at prices corresponding with those quoted on page 236 in our hand-book, "Central Station Stimulation."

Auditing

Expert examination of Central Station Accounts and Systems will be made and submitted with recommendations.

Engineering

Thorough examinations of Generating Departments of Central Stations with complete report and recommendations.

Complete Plant Supervision

The Central Station Development Company is prepared to take over and supervise Central Stations in their entirety, giving all departments the benefit of its expert facilities.

Special Services

Prices for special work for City and Boulevard lighting, including canvass and special contracts, on request.

Isolated Plants

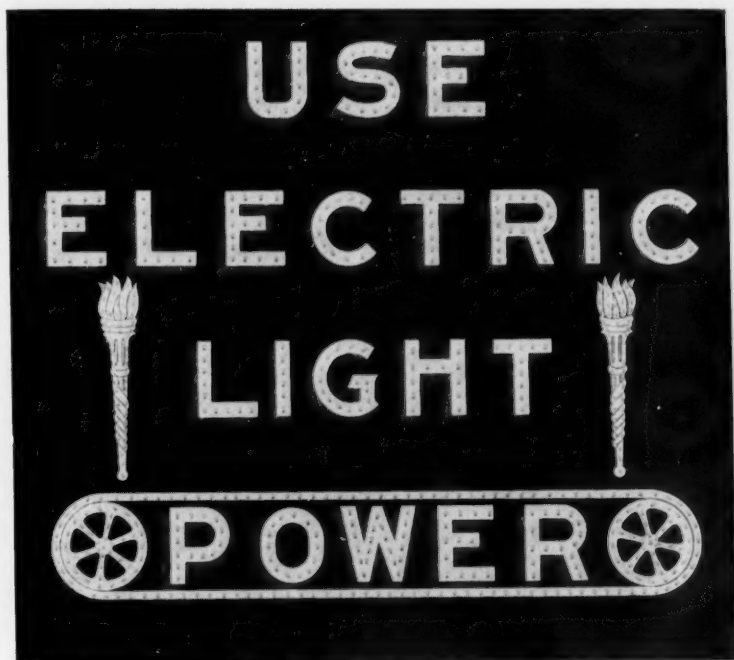
Prices for special work on Isolated, Gas and Gasoline Plants on request will be submitted.

Our Slogan

"Whatever your present system—in any department—may be, if a change in it will increase its efficiency—even if it involve the entire aggregation of 'Men and Methods'—the change should be made."

Copies of our hand-book, "Central Station Stimulation," with schedule of our service charges, may be obtained at booths No. 91 and No. 92 at Electric Light Convention, St. Louis, May 23-28, 1910.

**THE CENTRAL STATION
DEVELOPMENT COMPANY**
CLEVELAND, OHIO, U. S. A.



One of *Our* Recent Productions

The words "USE ELECTRIC" burn steadily.

The word, "LIGHT" and the Torches flash in, holding a few seconds.

Then the word "POWER" and the belt and pulleys.

The belt and pulleys revolve.

We will issue a New Bulletin in about ten days. Do not fail to ask for it; also for special colored designs and suggestions.

We have not *coined* or *patented* the word INDIVIDUALITY, but have always lived up to it in our *product*. GREENWOOD SIGNS show it.

Greenwood Advertising Company
Knoxville, Tennessee

In writing to advertisers, mention "Selling Electricity"

MONTGOMERY

The Biggest Industrial Opportunity In the New South

*Montgomery, Alabama, a city of 70,000 population,
invites new industries and meets them half way with*



Six trunk line railroads.

A clean, healthy city with low tax rate.

The finest water in the world.

Adequate supply of labor, black and white.

The Alabama River, which is navigable to tide water.

Cheap electric power.

The source of electric power is the famous Tallassee Falls. 8000 horse-power is now being developed, with a reserve capacity of enormous promise.

The Montgomery Light & Water Power Company, backed by the business interests of the city, can practically guarantee prosperity to new industries.

Montgomery Light & Water Power Company

Montgomery, - Alabama

In writing to advertisers, mention "Selling Electricity"

Prepare Your Campaign Now

Get after those **MILL AND FACTORY LIGHTING JOBS** with the new

TUNGSTELET

and install **MAZDA** and **TUNGSTEN** lamps where they could never be placed before. **IT PREVENTS VIBRATION** from reaching the lamp. Can be used on any sort of electrolier, bracket or pendant.

TUNGSTEN EFFICIENCY

at the price of an extra socket. Does that listen like **NEW BUSINESS?** Try it on a "Hard One."

Our "200" Tungstelet Pendant Line

an ornamental Tungsten pendant for little money is **JUST THE THING** **ELECTRIC LIGHT COMPANIES** HAVE BEEN LOOKING FOR.

Write for Bulletin No. 4.

The Tungstelet Company

101 Walker St.,
NEW YORK CITY



Cut 101



Cut 204

Spectacular Effects on the Largest Signs are produced by Flashers made by us.

Approved by Under-
writers.

Positively Reliable.

Durable.

Trouble Proof.



Require Little or No
Attention.

Send for Illustrated
Bulletins.

REYNOLDS ELECTRIC FLASHER MFG. CO.

Largest Manufacturers of Flashers in the World

193-195 Fifth Ave., Chicago, U. S. A. New York Office, 1123 Broadway

In writing to advertisers, mention "Selling Electricity"

Studebaker Electrics



How to Get New Business

There is a wonderful market centered around your station. You can *stimulate* it. Promote the use of Electrics and you develop *your own business*.

Thinking people everywhere are adopting STUDEBAKER Electric vehicles in preference to the horse. They cost less to maintain. They are so easy to control; so safe and convenient, they appeal to every member of the family.

Encourage their use and you increase *your earnings*.

See our exhibit at the St. Louis Convention.

Ask for our representatives at the Coliseum or the Planters Hotel. They will help you start a sales force in your vicinity which will create profitable new business every day.

If you do not visit the convention write us and we will advise you how you can profit by the demand for electric vehicles.

Studebaker Automobile Co., South Bend, Ind.

BRANCHES—New York, Cleveland, San Francisco, Louisville, Portland, Minneapolis, Dallas, Pittsburgh, Chicago, Boston, Denver, Seattle, Columbus, Kansas City, Stockton, Salt Lake City, Oakland, Sacramento, Philadelphia, Indianapolis, Milwaukee.

In writing to advertisers, mention "Selling Electricity"

Selling Electricity

Contents for May, 1910

	Page
Editorial	203
Union Electric Company of St. Louis	205
Pre-Convention Supplement, containing the program of the Commercial Sessions, Abstracts of Commercial Papers and Portraits of 108 leading Commercial Central Station Men	Opposite 208
"Little Electric Pump that Pumped the Lake Dry"	
W. N. Flickinger	209
A Butte Display	211
A "Dollar Idea"	212
Attitude of Central Stations Toward Electric Automobiles	213
James T. Hutchings	
More "Dollar Ideas"	216
"Specific Reasons Why"	217
A "Dollar Idea"	218
Increasing the Load on Existing Lines	219
E. R. Davenport	
A Stage Demonstration of Power Salesmanship	223
An Incident in Norfolk, Neb.	224
A "Dollar Idea"	224
Leading vs. Lagging	225
W. E. Bayard	
Electrical Progress	228

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FRANK B. RAE, JR., President and Treasurer EARL E. WHITEHORNE, Vice-President

W. C. ANDREWS, Secretary

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Entered as second-class matter, February 28, 1908, at the Postoffice at Brattleboro, Vermont, under Act of Congress of March 3, 1879.



Buckeye Lamp Service

THERE'S a difference between selling incandescent lamps and selling incandescent lamp service. Mere lamps, no matter how good in quality, seldom satisfy—you want and need lamps plus expert advice. When we tell you that there are hundreds of different sizes, styles and types of lamps, and that for every class of service there are from two to twenty lamps available, you will understand that the buyer who is not protected by the expert and honest advice of his lamp maker stands a big chance of getting a style or type unsuited to his peculiar requirements. The Buckeye Electric Company protects its customers from themselves. We advise the use of the right lamp for each specific service, whether or not that lamp is what the customer thinks he wants—whether or not it is the lamp we would prefer to sell. This policy has cost us a good deal of money at one time or another, but it has cemented our customers to us fast and hard, because Buckeye buyers have come to rely upon our advice as they would upon the recommendation of a disinterested expert. Are you quite sure you are using the right lamps in the right place? If you're not absolutely certain, get in touch with a Buckeye representative. His advice—whether you buy Buckeye or not—will be well worth listening to.

The Buckeye Electric Co.

MAIN OFFICE AND WORKS:

CLEVELAND, OHIO

CHICAGO:

23 East Lake Street

PITTSBURG,

Fulton Building

DALLAS:

220-221 Linz Building

SELLING ELECTRICITY

Edited by FRANK B. RAE, JR.

EARL E. WHITEHORNE, Managing Editor

The Other Fellow's Brains

TO be in the fashion, we should here say something about the value and advantages of the Convention of the National Electric Light Association; how one may there get the essence of the year's progress in four short days, and gather the fruits of other men's experience. A writing along such lines would be timely and would bring gratification to the half-hundred hard-working members of the Association who have done so much to make the Convention a success, but—

Those of you commercial men who go to St. Louis on the 23d of May with the notion that tabloid success and guaranteed-to-work sales plans will be passed out with the badges when you register, are going to be rudely awakened. The best that one may get from a Convention of this sort is a new point of view. And that, really, is what one should go for—that and nothing else.

A Convention paper, especially a commercial paper, is seldom a solution; more often it is but the statement of a problem in a new light. The writer may tell how he personally met the problem, without giving more than a fair hint at the solution from your standpoint or mine. But that hint is—or should be—enough. Those who are doing real work are not looking for someone else to do that work for them. Those who are winning success do not ask that it be supplied in printed form with free instructions on the wrapper.

The value of the National Convention lies in the wealth of suggestion, in the breadth of view obtained. It lifts us out of the narrow groove of our own office, gives us perspective, reveals our weakness pitilessly, and we start forward upon another year's work with our delusions gone and our determination strengthened. We learn that other men have succeeded where we have failed—that is a bitter dose—but we also learn where we have succeeded beyond others, and that compensates.


The central station commercial man has peculiar need for the N. E. L. A. Convention because in his business he is isolated. The corner grocer has a

competitor across the way who supplies him with the necessity of initiative and resource. The manufacturer has a competitor in the ante-room of every customer. But the central station man must go it alone, driving forward without prod or bait, developing his market or letting it stagnate according to chance and his own innate power. He is much like a runner practicing alone—the spur of competition does not drive him to his best speed nor does the sting of defeat make him realize the importance of better “form.”

This Convention supplies the only substitute we have for competition, by setting us one against another in the race for reputation. It is a race worth winning. To have a man you have always looked up to as one of the “big fellows” shake hands with a “Mighty glad to know you; I’ve heard of you often,” is one of the most inspiring things in the world. You’ve never thought of your work as particularly notable, but here is a man who knows what you are doing and who respects and honors you for doing it. Somehow, this sort of thing makes the job better worth while.

* * * * *

You will not find the National Convention a place where ready-made success is to be picked up in a short week. The papers and discussion are not an infallible guide to quick prosperity and a general manager’s job. But it has a larger and better result: It teaches you your own value, gives you intimate acquaintance with the strength and weakness of the men who head the industry, and supplies the incentive and inspiration for another year’s work.

Program of Commercial Sessions
and short abstracts of the Com-
mercial Papers will be found on the
cover pages of the Convention
Supplement in this issue 

The Union Electric Light & Power Company of St. Louis

Some Interesting Facts and Figures Concerning the St. Louis Central Station

DURING the coming convention of the National Electric Light Association at St. Louis, the Union Electric Light and Power Company will naturally be very much in the eyes of the central station industry. To those who will be in attendance, therefore, a few facts and

secretary - treasurer, book - keeping, billing and electrical engineer's departments. On the third floor are located the offices of the president-general manager, chief engineer of power plants, purchasing department, automobile department, solicitor's room and drafting department.



Ground Floor Show Room, Office of the Union Electric Light & Power Co., St. Louis

figures concerning the local property will be of interest.

The Union Electric Light and Power Company occupies a four-story brick building, 60 x 90 feet, at the corner of Tenth and St. Charles streets. The first floor is used as a show room, and for receiving tellers, contracting and commercial departments. On the second floor are located the offices of the

The fourth floor is used as a blue print room in connection with the drafting department. There are 20 salesmen in the new business department.

The Company delivered from its generating station during the year 1909, 113,335,675 kilowatt hours. In January 1910, the output was 12,150,788 kilowatt hours. The total

number of lamps and appliances connected to the company's lines are as follows:

Incandescent Lamps	766,200
Arc Lamps	7,000
Nernst Lamps	4,500
Motors equivalent to	34,875 horse-power.

The gross revenue for the year ending December 31st, '09, was \$3,085,614.

This service is furnished through 23,805 connections and 24,937 meters, approximately 14,000 of these connections being for residences. The Union Electric Co.

Broadway. This sign may be seen for a distance of one mile down Broadway through the glare of the many magnetite arc lamps.

At No. 3916-22 Morgan Street, the Company operates the only exclusive electric garage and charging station in St. Louis. About three years ago, there were approximately only 34 electric vehicles and trucks in St. Louis and the garage was designed at that time, with space for eighty machines and capacity for charging sixty-four vehicles at one time.



One of the Spectacular Electric Signs Maintained by the Union Electric Light & Power Co.

also furnishes about 150,000 kwh. per month to the King Electric Company and the Suburban Electric Light & Power Company, which distribute the current throughout the suburbs in St. Louis County.

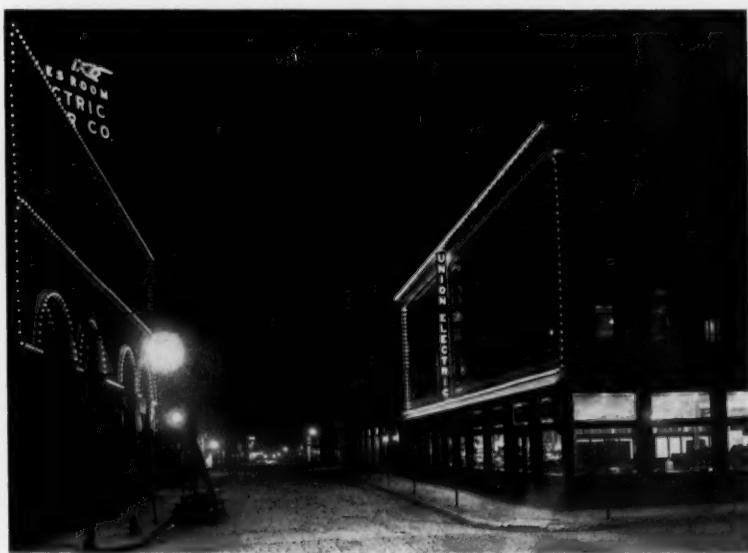
There are about 200 electric signs in St. Louis containing approximately 40,000 lamps. The Union Electric Co. has recently installed a spectacular power sign, 45 feet high x 35 feet wide and containing 1500 4-cp. lamps on the roof of a building at No. 820

There are now in use in St. Louis about 375 electric vehicles, with 46 private electric garages equipped with mercury rectifiers for charging purposes. There are nine agents selling twelve different makes of automobiles.

The Union Electric Company receives \$35.00 per month as garage charges for each car and this amount covers the charging of cells, inspection and calling for and delivering machines. There are about 70 automobiles cared for in this manner, seventeen men be-

ing employed about the garage. The Company also acts as sales agent for two standard makes of electric vehicles, both trucks and pleasure cars. The present garage is now becoming taxed for space and arrangements are being made to fit up one of the old sub-stations at 20th and Locust streets with charging and storing facilities for 150 trucks. After this new garage is opened, the present garage will be

winches for drawing in cable. One truck is arranged with a separate motor for driving the winch head; with the other, the winch is driven from the vehicle motors themselves. With one of these trucks, a crew of 6 and a foreman can draw in from 3000 to 5000 feet of heavy cable per day. In the overhead or alternating current district there are at the present time over 2400 transformers ranging in



Office of the Union Electric Light & Power Co. Sub-Station No. 3 Shown to the Left

used exclusively for pleasure vehicles.

The Company consumes annually about 360,000 tons of coal, fed to 68 boilers driving 11 large turbines or engines aggregating 80,000 hp. The current is delivered from the generators to the distributing system through seven sub-stations, and thence over approximately 355 miles of underground cable, 3053 miles of copper wire and 37,000 poles. The underground construction and repair department has two large motor driven cable trucks, which are fitted up with

size from 20 to 2000 light capacity.

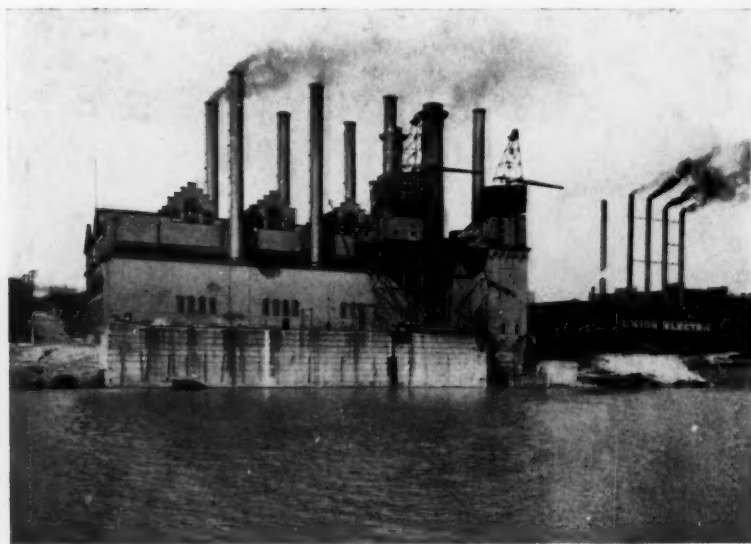
The overhead line department is provided with speedy automobiles to enable them to cover long distances and keep in close touch with their work. In order to properly take care of all troubles and emergencies arising with the distribution of the current, the Company maintains one of the most complete trouble organizations in the country. This department is handled by three competent foremen, each working eight hours and having under him a corps of in-

spectors. Each inspector has an automobile, and therefore, is able to give very prompt and efficient service.

The Union Electric Company maintains one of the best equipped laboratories in the country for the calibration and repair of meters. The frequency of regular periodic tests varies from 60 days in the case of large direct current meters to one year in the case of small residence alternating current

being on the lines of the Company upwards of 7000 arc lamps and 4500 Nernst lamps, all of which are owned and maintained by the Company.

The officials of the Union Electric Light & Power Co. have extended a very cordial invitation to all members of the National Electric Light Association to visit them at the Company's offices, and will be glad to act as hosts to the visiting central station



View of Ashley Street Generating Station. Lewis Street Station Shown to the Right

meters, and all meters are tested after being placed on the consumers' premises. The meters are read continuously, making it possible to use men specially qualified for this work.

Under the supervision of the laboratory, samples of incandescent lamps from all original packages are tested and this system maintains a lamp quality of high standard. The head of the meter department also has charge of all arc lamp and Nernst lamp trimming and repairing; there

men. The department heads are: Mr. Alton S. Miller, President and General Manager; Mr. Herman Spoehrer, Secretary and Treasurer; Mr. S. B. Way, Chief Engineer, Electrical Equipment; Mr. John Hunter, Chief Engineer, Power Plants; Mr. W. R. Johnson, Manager New Business Department; Mr. F. D. Beardslee, Manager Commercial Engineering Department; Mr. E. H. Shufro, Purchasing Agent; Mr. C. E. Michel, Manager, Electrical Automobile Department.

SELLING ELECTRICITY



N. E. L. A.



Pre-Convention Supplement



FRANK W. FRUEAUFF

President of the National Electric Light Association
General Manager of the Denver Gas & Electric Company, Denver, Colorado



PRE-CONVENTION SUPPLEMENT

OF THE

TWENTY-FIFTH ANNIVERSARY CONVENTION

Program of Commercial Sessions

Wednesday, May 25th

Morning Session, 10 o'clock

LATITUDE IN COMMERCIALISM	-	Arthur S. Huey
RESIDENCE LIGHTING	-	H. J. Gille

Afternoon Session, 2.30 o'clock

CENTRAL STATION ADVERTISING	-	Howard K. Mohr
THE ELECTRIC VEHICLE OPPORTUNITY	-	Hayden Eames
DECORATIVE STREET LIGHTING	-	E. L. Elliott

Thursday, May 26th

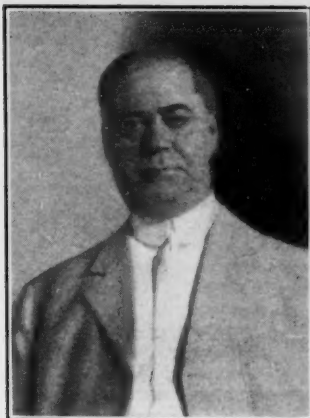
Morning Session, 10 o'clock

SALES DEPARTMENT ORGANIZATION	-	T. I. Jones
A PLAN TO INTEREST NATIONAL ADVERTISERS IN ELECTRIC PUBLICITY	-	Frank B. Rae, Jr.
INDUSTRIAL LIGHTING WITH INCANDESCENT LAMPS	-	H. S. Hall, J. M. Hoit, P. F. Bauder
PROMPT EXECUTION OF ORDERS	-	Clare N. Stannard
ELECTRICITY ON THE FARM	-	Herman Russell

On the following pages are shown the portraits of some of the Real Men who will attend the St. Louis Convention. They are the leaders of the industry, but meet them in friendly fashion in the Convention Halls or at the Exhibition and you will find them mighty good fellows.



ARTHUR WILLIAMS
General Inspector New York
Edison Co., New York City.
Past President, National
Electric Light Association.



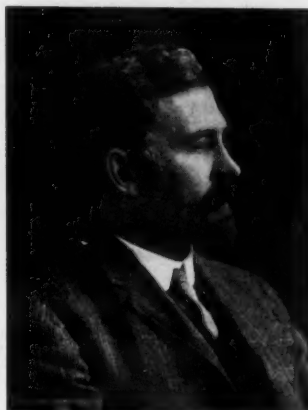
ARTHUR S. HUEY
Vice-President H. M. Byllesby
& Co., Chicago, Ill. Member,
Commercial Program Com-
mittee, National Electric
Light Association.



W. W. FREEMAN
2nd Vice-President Edison Elec-
tric Illuminating Co., Brook-
lyn, N. Y. Vice-President,
National Electric Light
Association.



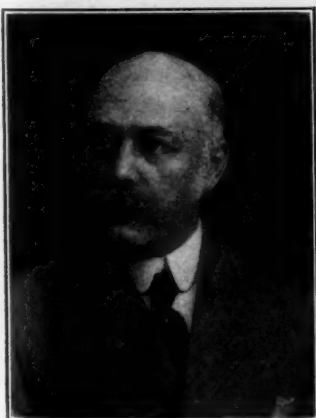
W. C. L. EGLIN
Chief Electrician Philadelphia
Electric Co., Philadelphia, Pa.
Past President, National
Electric Light Association.



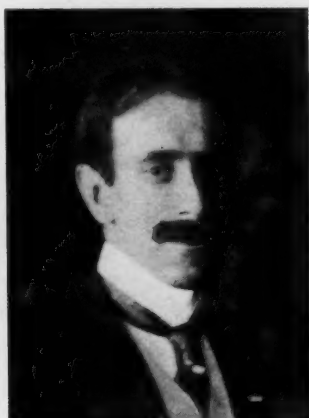
HENRY L. DOHERTY
Henry L. Doherty & Co., New
York City. Past President,
National Electric Light As-
sociation.



GEORGE N. TIDD
General Manager American Gas
& Electric Co., New York
City.



T. C. MARTIN
Executive Secretary National
Electric Light Association,
New York City.



DUDLEY FARRAND
General Manager Public Service
Corporation of N. J., Newark,
N. J. Past President, Na-
tional Electric Light As-
sociation.



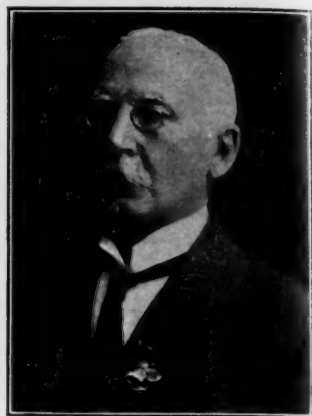
F. M. TAIT
General Manager Dayton Light-
ing Company, Dayton, Ohio.
Member, Executive Commit-
tee, National Electric Light
Association.



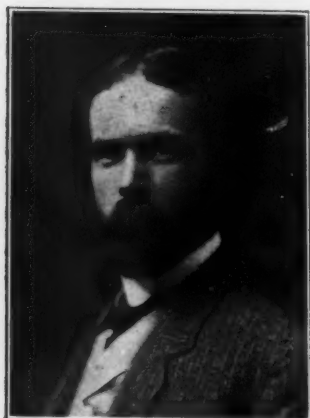
FRED D. ADAMS
Secretary and Treasurer The
United Illuminating Co., New
Haven, Conn.



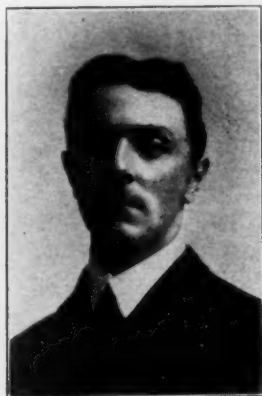
E. H. BEIL
Chief Electrician Youngstown
Consolidated Gas & Electric
Co., Youngstown, Ohio.



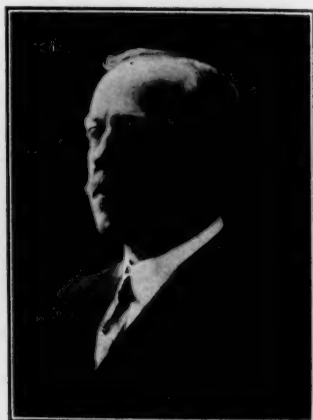
B. F. CRESSON
General Manager Easton Gas &
Electric Co., Easton, Pa.



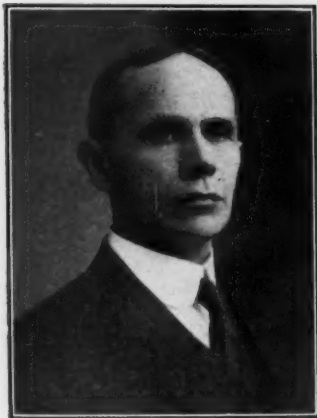
L. D. MATHES
General Manager Union Electric
Co., Dubuque, Iowa.



R. A. FIELD
Superintendent The Rome Gas,
Electric Light & Power Co.,
Rome, New York.



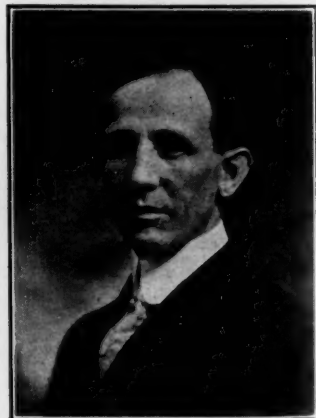
E. E. LARRABEE
Manager Twin State Gas &
Electric Co., Bennington, Vt.



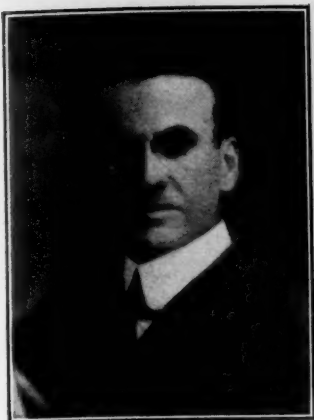
E. L. SMITH
President and Manager Tow-
anda Electric Illuminating Co.,
Towanda, Pa.



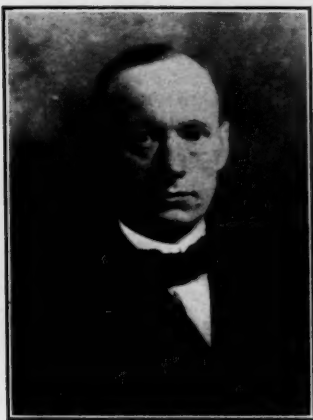
B. C. ADAMS
Manager Lincoln Gas & Elec-
tric Light Co., Lincoln, Neb.



ALEX. J. CAMPBELL
Secretary & Manager New Lon-
don Gas & Electric Co., New
London, Conn.



E. L. CALLAHAN
Manager New Business Dept.
H. M. Byllesby & Co., Chicago,
Ill.



WM. A. DONKIN
General Contracting Agent Al-
legheny County Light Co.,
Pittsburg, Pa.



A. V. WAINRIGHT
Manager Commercial Dept. Sus-
quehanna Railway, Light &
Power Co., New York City.



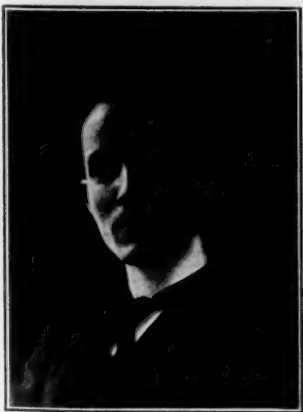
GEORGE WILLIAMS
Commercial Representative Hen-
ry L. Doherty & Co., New
York City. Chairman Com-
mercial Program Commit-
tee, National Electric
Light Association.



V. A. HENDERSON
Manager Commercial Dept., Mer-
chants Power Co., Memphis,
Tenn. Member, Commer-
cial Program Committee,
National Electric Light
Association.



JOSEPH F. BECKER, Jr.
General Sales Agent, United
Electric Light & Power Co.,
New York City. Member
Commercial Program Com-
mittee, National Elec-
tric Light Association.



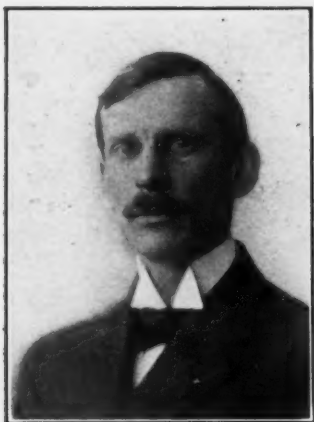
HOWARD K. MOHR
Advertising Manager Philadel-
phia Electric Co., Philadel-
phia, Pa. Member, Com-
mercial Program Commit-
tee, National Electric
Light Association.



HAROLD ALMERT
Manager Department of Exami-
nations, H. M. Byllesby & Co.,
Chicago, Ill.



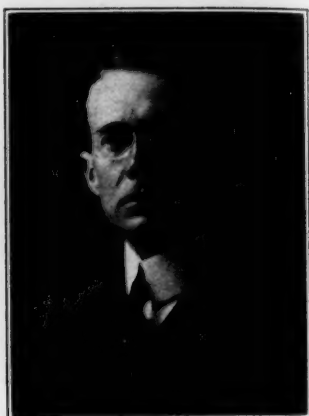
THEODORE I. JONES
General Sales Agent Edison
Electric Illuminating Co.,
Brooklyn, N. Y. Member,
Commercial Program Com-
mittee, National Elec-
tric Light Association.



F. H. GALE
In Charge of Advertising, General Electric Co., Schenectady, N. Y. Chairman Exhibition Committee, National Electric Light Association.



J. ROBERT CROUSE
General Sales Manager National Electric Lamp Association, Cleveland, Ohio. Member, Commercial Program Committee, National Electric Light Association.



PERCY INGALLS
Assistant to President Public Service Corporation of N. J. Newark, N. J. Member, Commercial Program Committee, National Electric Light Association.



GEORGE B. JOHNSON
Contract Department, Commonwealth Edison Co., Chicago.



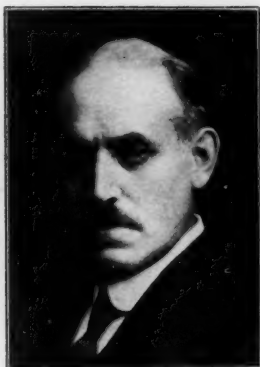
CYRIL NAST
Advertising Manager New York Edison Co., New York City.



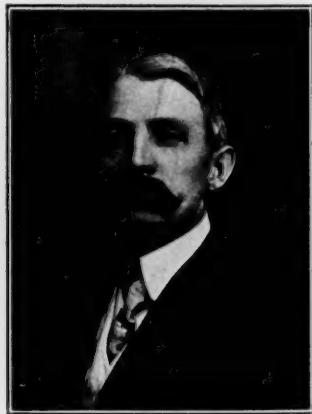
LUDWIG KEMPER
Operating Manager, Fuel Engineering Co., Chicago, Ill.



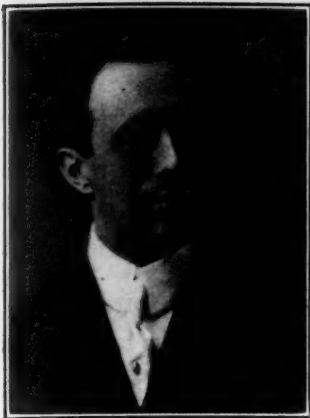
HAYDEN EAMES
General Manager Studebaker Automobile Co., South Bend, Ind.
(Paper on Commercial Program)



E. L. ELLIOTT
Illuminating Engineer, New York City.
(Paper on Commercial Program)



C. W. LEE
President The C. W. Lee Company, New York City. Member, Commercial Program Committee, National Electric Light Association.



J. F. McGUIRE
Manager New Business Dept.
Ottumwa, Railway & Light
Co., Ottumwa, Iowa.



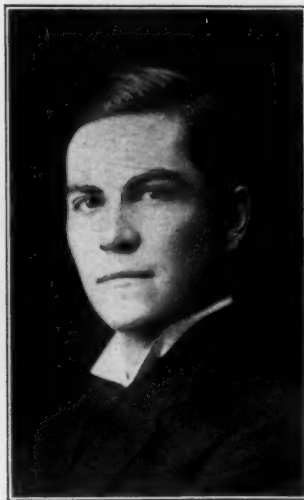
A. D. DUDLEY
Commercial Agent Syracuse
Lighting Co., Syracuse, N. Y.



EDWIN C. NEWMAN
Commercial Engineer Concord
Electric Co., Concord, N. H.



J. E. BULLARD
Power Expert, Toronto Electric
Light Co., Ltd., Toronto,
Canada.



H. N. McCONNELL
Manager Commercial Dept. Col-
orado Springs Electric Co.,
Colorado Springs, Colo.



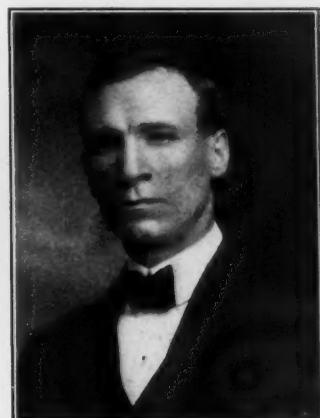
J. H. FORBUSH
Superintendent Shenango Valley
Electric Light Co., Sharon, Pa.



T. D. BUCKWELL
Contract Agent Toledo Railways
& Light Co., Toledo, O.



F. T. WILLIAMS
Sales and Contract Agent, Roa-
noke Railway & Electric Co.,
Roanoke, Va.



EGBERT DOUGLASS
General Manager Springfield
Light, Heat & Power Co.,
Springfield, Ohio.



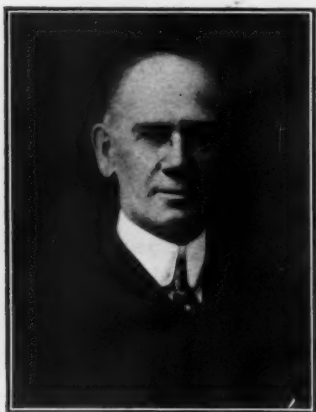
L. D. GIBBS
Assistant Advertising Manager,
Edison Electric Illuminating
Co. of Boston, Boston, Mass.



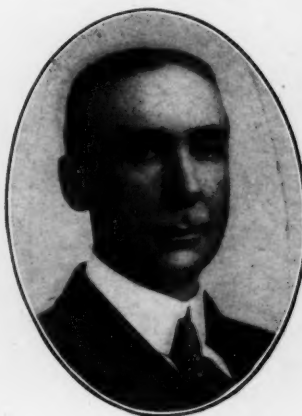
F. D. BEARDSLEE
Manager Commercial Engineer-
ing Dept. Union Electric Light
& Power Co., St. Louis, Mo.



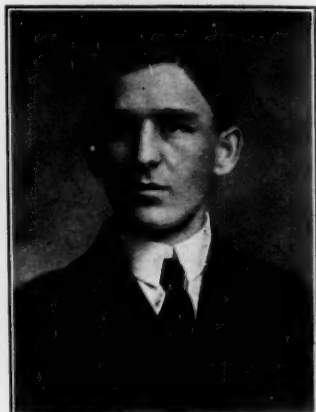
W. R. JOHNSON
Manager New Business Dept.
Union Electric Light & Pow-
er Co., St. Louis, Mo.



W. H. ATKINS
General Superintendent Edison
Electric Illuminating Co. of
Boston, Boston, Mass.



S. M. KENNEDY
General Agent Edison Electric
Illuminating Co. of Los Ange-
les, Los Angeles, Calif.



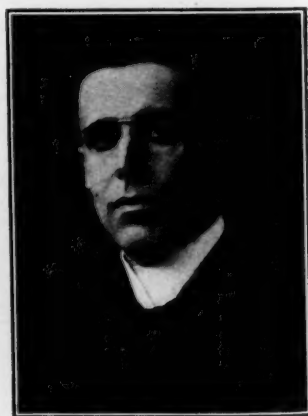
D. F. FRADETTE
Commercial Manager Merchants
Heat & Light Co., Indian-
apolis, Ind.



J. A. FLEET
General Superintendent Consoli-
dated Electric Light Co. of
Maine, Portland, Maine.



G. E. WILLIAMSON
Sign Expert Denver Gas & Elec-
tric Co., Denver, Colo.



S. MORGAN BUSHNELL
Commonwealth Edison Co.,
Chicago, Ill.



H. C. PORTER
Commercial Manager Montgomery Light & Water Power Co.,
Montgomery, Ala.



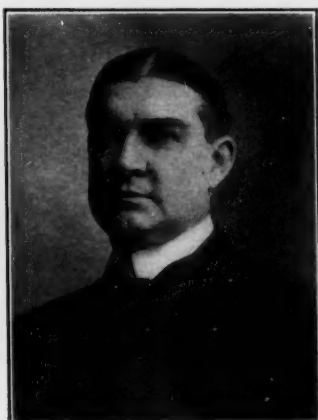
ROY A. MacGREGOR
General Manager Light, Heat
& Power Co., Connersville,
Ind.



J. S. MALTMAN
Superintendent Kankakee Elec-
tric Light Co., Kankakee, Ill.



A. H. S. CANTLIN
Business Manager Allentown
Electric Light & Power Co.,
Allentown, Pa.



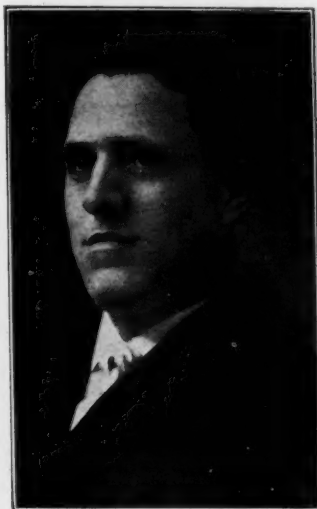
VAN HUNTINGTON
New Business Manager Canton
Electric Co., Canton, Ohio.



J. G. BARRETT
General Manager Licking Light
& Power Co., Newark Ohio.



C. P. GALLAGHER
Manager New Business Dept.
Auburn Light, Heat & Power
Co., Auburn, N. Y.



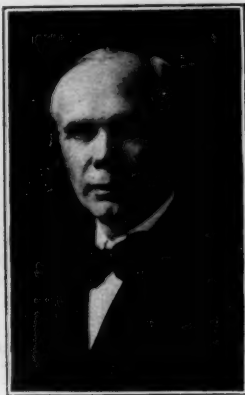
FRED E. SCHORNSTEIN
General Manager Richmond
Light, Heat & Power Co.,
Richmond, Ind.



WM. L. LEWIS
Manager Rockville Gas & Elec-
tric Co., Rockville, Conn.



K. B. THORNTON
Electrical Lighting Engineer,
J. G. White & Company, New
York City.



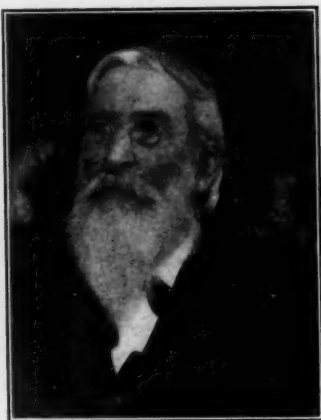
PAUL LUPKE
Superintendent Public Service
Corporation of N. J.
Trenton, N. J.



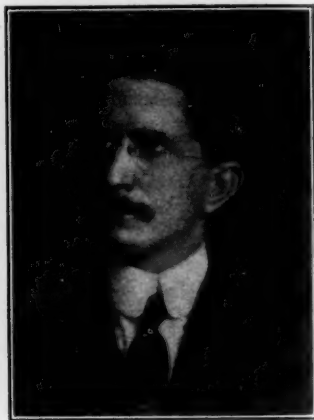
JAMES E. DAVIDSON
American Power & Light Co.,
New York City.



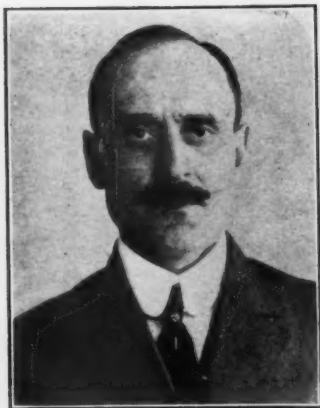
R. S. HALE
Superintendent Sales Dept.,
Edison Electric Illuminating
Co. of Boston, Boston, Mass.



A. C. DUNHAM
President The Hartford Electric
Light Co., Hartford, Conn.



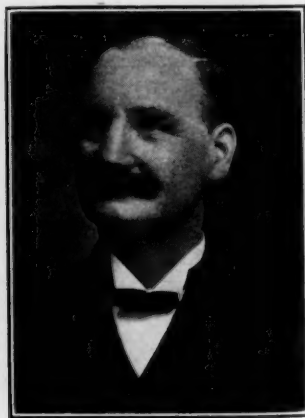
N. T. WILCOX
Manager Stone & Webster New
England Properties, Lowell,
Mass.



R. S. ORR
General Superintendent Alle-
gheny County Light Co., Pitts-
burg, Pa.



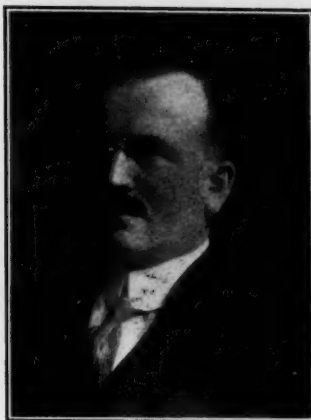
CHARLES M. COHN
Vice-President and General
Manager Consolidated Gas,
Electric Light & Power Co.,
Baltimore, Md.



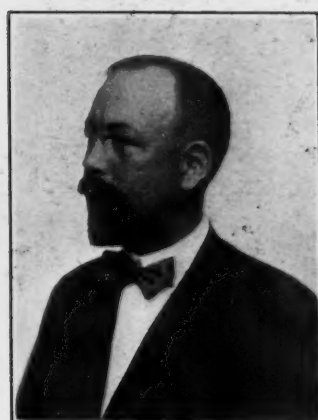
J. C. ROTHERY
General Manager The East Liv-
erpool Traction & Light Co.,
East Liverpool, Ohio.



H. T. SANDS
Assistant General Manager Mal-
den Electric Co., Malden,
Mass.



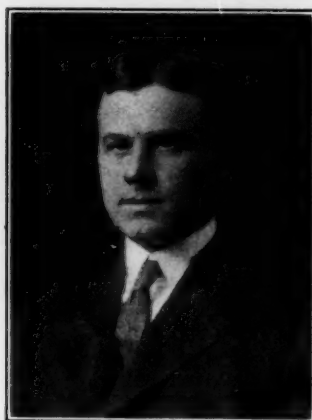
E. F. McCABE
Superintendent Mifflin County
Gas & Electric Co.,
Lewistown, Pa.



E. S. DOANE
Chief Engineer National Elec-
tric Lamp Association,
Cleveland, Ohio.



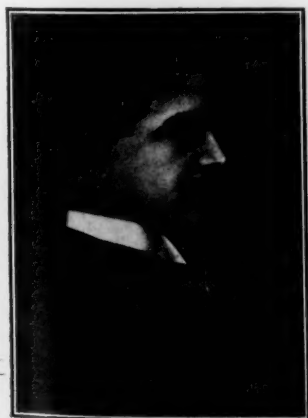
H. H. SCOTT
Henry L. Doherty & Co., New
York City. Chairman Mem-
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Electric Light Association.



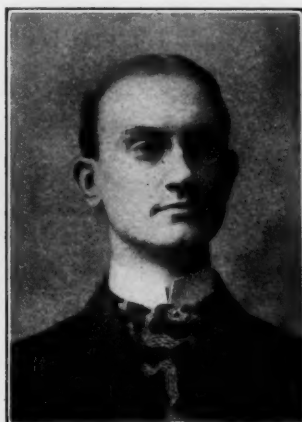
F. H. GOLDING
Manager Rockford Electric Co.,
Rockford, Ill.



E. T. PENROSE
Manager Penn Central Light &
Power Co., Altoona, Pa.



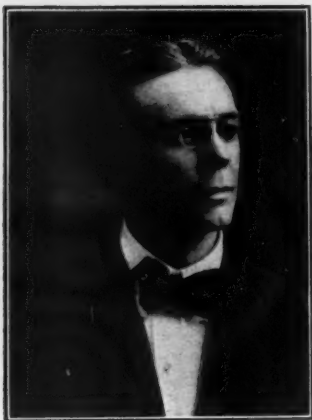
J. T. HUTCHINGS
General Manager Rochester
Railway & Light Co.,
Rochester, N. Y.



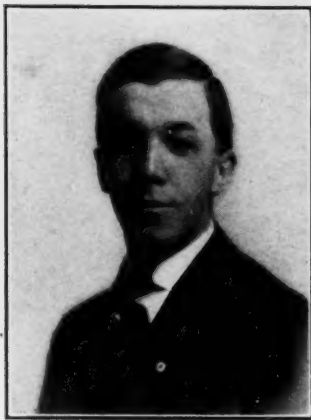
E. R. DAVENPORT
Sales Agent Narragansett Elec-
tric Lighting Co.,
Providence, R. I.



W. L. MULLIGAN
Manager United Electric Light
Co., Springfield, Mass.



W. JOSEPH KYLE
Commercial Engineer, Rockford Electric Co., Rockford, Ill.



THOMAS F. KELLY
Contract Agent, Hamilton Electric Light & Power Co., Hamilton, Ont.



JULIAN N. WALTON
Electric Vehicle Expert, Edison Illuminating Co., Brooklyn, N. Y.



C. E. MICHEL
Manager Automobile Department
Union Electric Co.,
St. Louis, Mo.



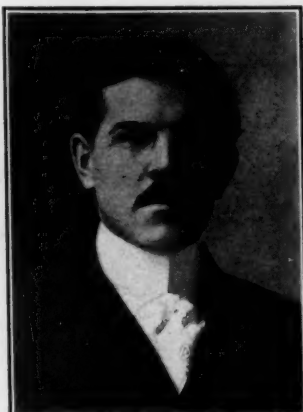
JOSEPH D. ISRAEL
District Manager Philadelphia Electric Co., Philadelphia, Pa.



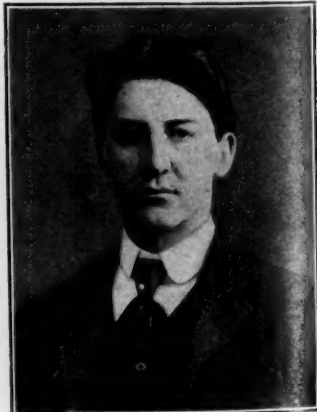
NORMAN B. HIKOCX
H. M. Byllesby & Co.,
Chicago, Ill.



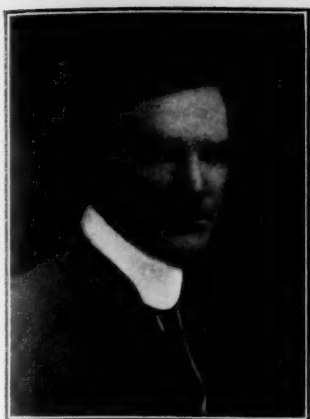
THOMAS E. SPENCE
Power Expert, Luzerne County Gas & Electric Co., Plymouth, Pa.



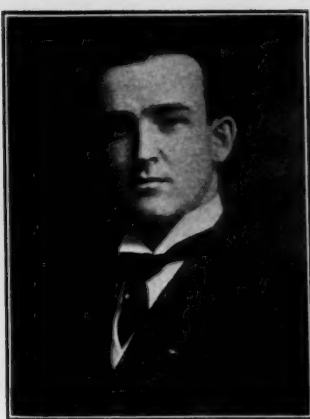
G. A. GRAVES
Power Engineer, Edison Electric Illuminating Co., Brooklyn, N. Y.



G. A. SAWIN
Illuminating Engineer, Public Service Corporation of N. J., Newark, N. J.



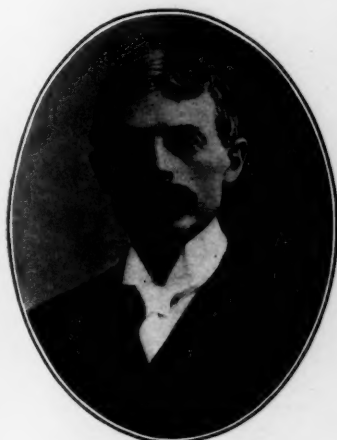
JOHN C. McLAUGHLIN
Chief Clerk, Potomac Electric Power
Co., Washington, D. C.



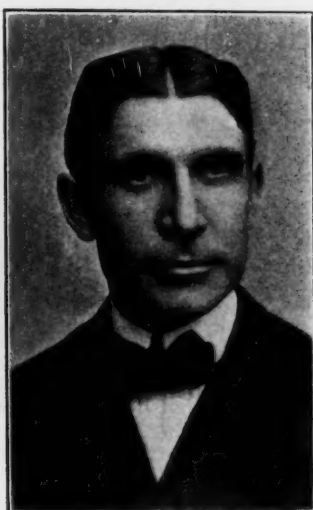
D. M. COUGHLIN
Contract Agent, Easton Gas & Elec-
Co., Easton, Pa.



H. J. GILLE
Commercial Agent, Minneapolis Gen-
eral Electric Co., Minneapolis, Minn.



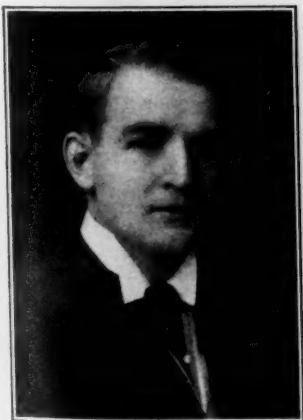
CLARE N. STANNARD
Secretary Denver Gas & Electric Co.,
Denver, Col.



HUGH L. MONTGOMERY
General Manager Auburn Light,
Heat & Power Co., Auburn, N. Y.



H. W. CHASE
Manager New Business Department
The Union Gas & Electric Co.,
Cincinnati, Ohio



JOHN G. LEARNED
Contracting Agent, North Shore Elec-
tric Co., Chicago, Ill.



DUNCAN T. CAMPBELL
General Manager Scranton Electric
Co., Scranton, Pa.



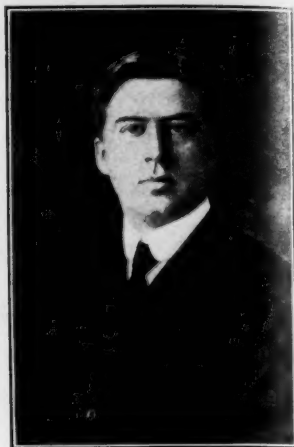
W. C. ANDERSON
General Manager Canton Electric
Co., Canton, Ohio



J. E. HARSH
Commercial Manager The Em-
pire District Electric Co.,
Joplin, Mo.



GEORGE B. JOHNSON
Montreal Light, Heat & Power
Co., Montreal, Canada.



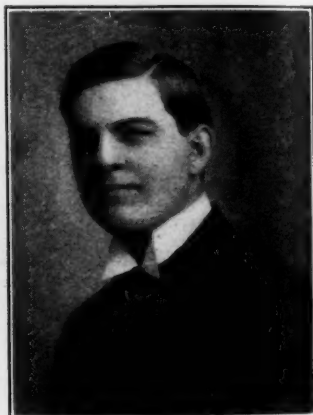
J. E. GRAY
Power Engineer Narragansett
Electric Lighting Co.,
Providence, R. I.



WALTER NEUMULLER
New York Edison Co., New
York City. Secretary Exhi-
bition Committee, N. E. L. A.



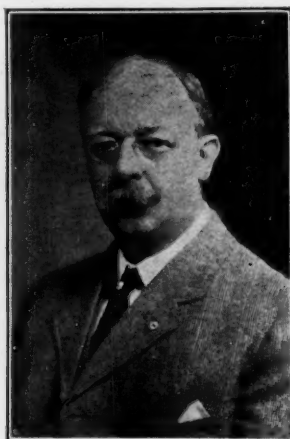
L. M. OLMSTEAD
Assistant General Manager
Binghamton Light, Heat &
Power Co., Binghamton,
N. Y.



B. G. McNABB
Manager New Business Depart-
ment Montreal Light, Heat
& Power Co., Montreal,
Canada.



GEORGE N. ROOKER
New Business Department
Washington County Light &
Power Co., Stillwater, Minn.



W. H. WISSING
General Manager Central Sta-
tion Development Co.,
Cleveland, Ohio.

What the Commercial Papers Will Contain

The paper on RESIDENCE LIGHTING will be presented by Mr. Henry J. Gille, Commercial Agent, Minneapolis General Electric Company, Minneapolis, Minn.

Mr. Gille offers some interesting figures on the diversity factor of residence business, and the profit and load susceptible to development. "Education," he says, "begins at home and the value of residence business is far reaching. Its various influences should not be overlooked." Mr. Gille is an eminent authority on this subject and his paper is based on personal experience.

The paper on LATITUDE IN COMMERCIALISM will be presented by Mr. Arthur S. Huey, Vice-President, H. M. Bylesby & Co., Chicago.

Mr. Huey makes a stirring appeal to central station men for a broader commercial policy, and better business methods in the organization. Mr. Huey is in close touch with a large number of properties and his point of view is comprehensive. This is a plain talk that is rich in suggestion and sound advice.

The paper on DECORATIVE STREET LIGHTING will be presented by Mr. E. Leavenworth Elliott, Editor, The Illuminating Engineer, New York.

This paper treats of the importance of street lighting as a stimulant to other classes of illumination, exterior and interior. Illustrations are cited, with photographs of various types of street equipment.

The paper on INDUSTRIAL LIGHTING WITH INCANDESCENT LAMPS has been prepared by Messrs. H. S. Hall, J. M. Hoit and P. F. Bauder of the National Electric Lamp Association, Cleveland, O.

This paper is a thorough treatise on the status of illumination in industrial establishments, and describes the remarkable results which have been accomplished in the last year through the introduction of high efficiency illumination in mills and factories.

The paper on PROMPT EXECUTION OF ORDERS will be presented by Mr. Clare N. Stannard, Secretary and Commercial Manager, Denver Gas & Electric Co., Denver, Colo.

Mr. Stannard's ideas on this subject are based on his long experience with the Denver Company, the pioneer in the field of central station commercial activity. His paper contains valuable suggestions for raising the facility and efficiency of the sales and office organization.

The paper on A PLAN TO INTEREST NATIONAL ADVERTISERS IN ELECTRIC ADVERTISING will be presented by Mr. Frank B. Rae, Jr.,

Editor, SELLING ELECTRICITY, New York, and Secretary of the Commercial Program Committee.

Mr. Rae proposes a plan whereby it may be made possible for all central stations in cities of large population to secure the attention of national advertisers. This plan has the approval and financial support of the large electric sign manufacturers, and promises a solution to the problem which has been discussed at previous conventions—"How can we interest national advertisers so that they will maintain electric signs in our city?"

The paper entitled ADVERTISING has been prepared by Messrs. Howard K. Mohr, Advertising Manager, Philadelphia Electric Co., Philadelphia, and C. W. Lee, President, C. W. Lee Company, New York.

This paper by two of the leading authorities on central station advertising, discusses the subject thoroughly—its objective, its effect, both on the public and the central station itself, its application to small and large companies and the appropriation required. Instances are cited to illustrate results gained by various forms of publicity.

The paper on COMMERCIAL DEPARTMENT ORGANIZATION will be presented by Mr. T. I. Jones, General Sales Agent, Edison Electric Illuminating Company, Brooklyn, N. Y.

Mr. Jones has made a study of this subject and his views are particularly interesting. The paper describes the sales organization in operation in Brooklyn and explains in detail the economies and efficiencies effected.

The paper on ELECTRIC AUTOMOBILES will be presented by Mr. Hayden Eames, General Manager, Studebaker Automobile Co., South Bend, Ind.

Mr. Eames is an eminent authority on electric vehicles, and his paper is particularly pertinent at the time. It treats largely with the difficulties encountered in overcoming the popular prejudice in favor of horse drawn or gasoline wagons, and suggests the means for overcoming the obstacle of ambiguous vehicle rating. Interesting figures are given to indicate the importance of this subject to the central station.

The paper entitled ELECTRICITY ON THE FARM will be presented by Mr. Herman Russell, Rochester Railway & Light Co., Rochester, N. Y.

This paper is a very interesting description of the many installations of electric light and power among the farms surrounding the city of Rochester. Mr. Russell has facts and figures which demonstrate the possibilities in this class of business.

OF the 108 leading men of the Central Station industry whose portraits are shown within, over 100 have contributed, directly or indirectly, to SELLING ELECTRICITY during the past year and practically all are personal subscribers.

Subscribing to SELLING ELECTRICITY is like joining a Success Club: you may never "get there" but at least you have the satisfaction and pleasure of knowing that the chaps you are rubbing elbows with are among the *real men* of the fraternity.

Aren't you about ready to take out your membership? The annual dues are the smallest piece of paper money in your pocket.

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19

THE RAE COMPANY,
74 Cortlandt Street, New York City.

Gentlemen:—Please send me SELLING ELECTRICITY beginning

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ONE DOLLAR per year

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ing

"The Little Electric Pump that Pumped the Lake Dry"

The Story of a Slate Quarry Installation in Bangor, Pa.

By W. N. FLICKINGER

IT happened in Bangor, Pa., situated in the northeastern corner of Northampton County at the foot of the Blue Mountains. Here are located the great slate beds from which three-fourths of the entire slate product of the United States is mined from an area approximately two miles wide by 20 miles long. When approaching this town one is impressed with three things: the huge derricks or travelling "crawls" for handling the slate from the quarries, the immense banks of refuse slate scattered around, and, if it be a cold, frosty morning, by the many visible points from which steam is ascending in the air. It was this steam that first attracted my attention.

These clouds of steam that arose from the bottom of the quarry pit and completely filled it so that objects were invisible six feet away, proved to be the exhaust from that "king of steam eaters," the duplex steam pump, and the best thing for any power solicitor to attack if he wants to "show up" the great saving that can be effected by the electric motor. I climbed up to the quarries or "pits," and found three deep holes in the earth ranging from 100 to 420 feet deep. At the latter point the mammoth bed is found or "the real pay streak," and the holes run as large as 500 feet wide by 1,000 feet long.

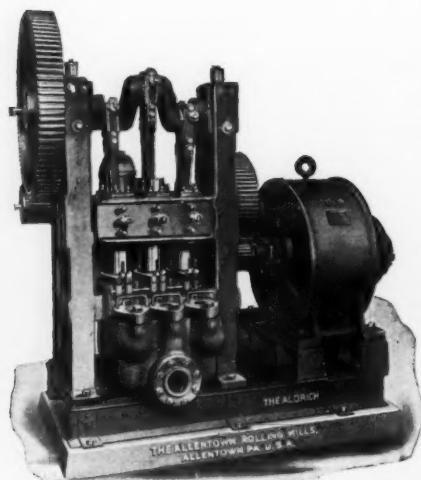
After a cursory examination of about ten of the largest quarries, I finally selected one in which I heard two steam pumps working, though I could not see them on account of the clouds of exhaust. I made inquiries as to who was the superintendent and where to find the general manager, and on finding the superintendent I got all the information I could relative to the cost of pumping. This was very little, however, as there never was any doubt in their minds that they were not doing it in the most economic manner and, therefore, they did not think it necessary to trouble themselves with cost keeping.

After explaining to the superintendent how economically the pumping could be done with electricity for power, I asked him for the name of the general manager, and was surprised to find that he was none other than a director of the Electric Light & Power Co. of the town, and a man with whom I was acquainted. I found my man and launched forth with vehemence on the large saving to be effected and the large power load at his finger ends for the mere proving that the electric pump was the medium for him to load on. Like all big fish, I found him wary of biting, but finally got his consent that I might call on the superintendent and get all the information he had; then to return with my proposition.

I went right back to the superintendent for the information, and after adding, paring down and juggling generally, I found that they were pumping 10,000 gallons per hour 175 feet high or 240,000 gallons in 24 hours and at a cost for that period about as follows:

2 tons coal per 24 hrs. at \$2.50 per ton,	\$5.00
2-horse team and man hauling coal	
per day.....	5.00
2 pump men, night and day shift.....	3.20
2 firemen, night and day shift.....	4.00
Interest, depreciation, insurance,	
packing and oil per day.....	.20

Approximate total cost per day ... \$17.40



The type of pump installed in the Bangor quarry

Two small hoisting engines were also operated by the same boiler plant and are included in these figures, but they only work at intervals during the day and are run by boys at .75 per day. Their wages are not included, however.

With this approximate data I then went to the Inn for supper and the night. After supper I turned the matter over in my head, and figured out the installation. A pump hav-

ing a capacity of 150 gallons per minute against 175 feet, I calculated would be ample to handle the water in 12 hours. The reduction in capacity per minute, I worked out on checking up the capacity of their steam pumps, and I took care to get the size, number of strokes per minute and the approximate hours they operated per day. Then based on the formula:

$$\frac{G. P. M. \times \text{Head}}{4000} = \text{Theoretical hp.}$$

I selected a 6x7 pump as shown in the illustration, having a capacity of 150 gallons per minute and a 10-hp. motor running at 1120 rpm. I made up my proposition and in the morning submitted it to the general manager. I listed the advantages of the electric pump as follows:

- 1st.—No steam in quarry which means a clear atmosphere, permitting the drillers and cutters to see what they are doing.
- 2d.—By locating starting box or rheostat upon the surface, pump can be stopped or started without crawling down a ladder two hundred feet, a nerve testing job at any time.
- 3d.—No night pump man required as the watchman can start and stop pump. A clear saving of \$1.60 per night.
- 4th.—When business is dull or weather conditions require a shut-down, every item of expenses stops, except the watchman's wages (which have to be paid every day, work or not,) plus the amount of current consumed at the regular rates.
- 5th.—A very marked saving in oil and packing will be shown.

He admitted that it looked "like an attractive proposition," and said that he would like to see the pump first. This he did and everything was all right except that he wanted a 15-hp. motor, which I agreed to.

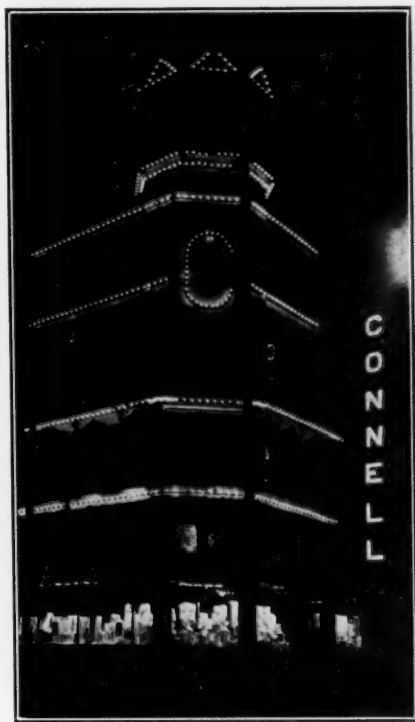
In the meantime there was a cloudburst in Bangor and so suddenly did the waters rise and flow into the quarry that it covered the steam

pumps and formed a regular lake, causing a complete tie-up of the quarry, for the two steam pumps were covered by over 20 feet of water.

An urgent telephone call was received from the general manager explaining the trouble and asking for immediate shipment of the outfit. The little electric pump was hurried out and put in place, but was considered by the different bosses as too small. At the end of 10 days' pumping, however, the lake was no more and the quarry—much to their

pleasure—was dry. Greater was their joy at the end of the month, however, when their total pumping bill was only \$123.00. This covered pumping the cloudburst, plus the usual flow of water in the quarry, as against the sum of \$522.00 per month, the previous cost according to their own data.

So goes the story of "the little pump that pumped the lake dry." Many more installations among the slate quarries have followed on the strength of this record, and the power company is loaded up to the limit.



A Butte Display

THIS installation in Butte, Montana, has caused a great deal of favorable comment. The three small gable effects, apparently floating above the building, give the display a particularly airy effect, and the large initial is a new touch also.

Some 675 5-watt tungsten sign lamps are used in the display.

A Dollar Idea

R. E. Gibbe, Salesman
Syracuse Lighting Co., Syracuse, N. Y.



WE KEEP the real estate men supplied with key tags which they use to identify the keys belonging to the various houses which they hold for rent. They are very glad to have them and we find the tags a very good bit of advertising for us, for the suggestion is always opportune.

Have the cards printed this way:—

Upon purchasing or renting this property immediately notify

(Name of Company)

(Address)

○

(Phone No.)

(City and State)

To insure prompt service a representative of the Company will call at once to take your Gas and Electric applications, and also show you cuts of the latest appliances.

KEY TAG

This key is the property of

Name

Address

○

Key for _____

Door

Address

(OVER)

The Attitude of Central Stations Toward Electric Automobiles

BY JAMES T. HUTCHINGS, GENERAL MANAGER
ROCHESTER RAILWAY & LIGHT COMPANY, ROCHESTER, N. Y.

Abstract of a Paper Read before the Convention of the New England Section of the National Electric Light Association, Boston, Mass., March 16 and 17.

THE important features in connection with the electric vehicle business are:—

A good vehicle, a battery suitable for the work which the vehicle is to perform, the maintenance of mechanical detail of the vehicle to keep any friction at the lowest possible point, and attention to the battery to see that it is properly charged and maintained. Each of these four points is equally important, and no one of them should be neglected.

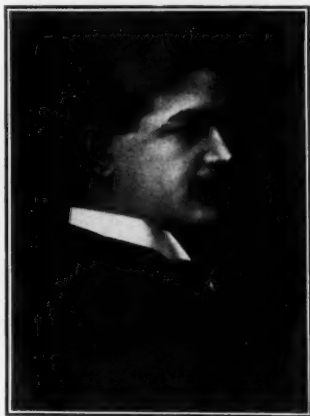
In the pleasure vehicle we are fortunate in having a very large number of extremely satisfactory equipments, and the customer can suit his own fancy as to selection. In the case of the commercial vehicle, however, there is a slight tendency on the part of certain manufacturers to slight some of the mechanical details, feeling that it is not necessary to give the commercial vehicle the same close attention in regard to the elimination of friction as is given to the pleasure vehicle, while the contrary should be the rule. In the

case of the commercial vehicle it is absolutely a question of dollars and cents in the moving of merchandise, while in the pleasure vehicle sentiment cuts a considerable figure.

In selecting a battery, care should be taken to see that the battery is

suitable for the work required of the vehicle in question. The battery should be of sufficient capacity to complete the maximum day's work required of the vehicle without boosting, and no more; in other words, the battery should be empty on the maximum day, and on the average day at least three-

quarters empty to get the best results. We have found in connection with some of our heavy trucking, where the mileage covered is low, that the standard heavy plate is giving excellent satisfaction, and the cost of maintenance is exceedingly low; whereas, in some of our delivery wagons, where it is advantageous to make from 60 to 65 miles per day if possible, it is necessary to use the thinnest possible plate in the



J. T. Hutchings

lead type battery. Ninety-five per cent of the work to be done in our cities and towns can be taken care of perfectly with the lead battery.

In order that the vehicle may do the work called for, it is necessary that the mechanical state of the wagon be kept at a point of highest efficiency all the time. This is only possible by systematic and frequent inspection, lubrication, cleaning, and re-lining where necessary. If we would have the wagons already in use give perfect satisfaction, we must insist on this inspection of the mechanical part of the vehicle, and on the maintenance of every moving part in the highest state of efficiency. An increase of 25 per cent in the friction of the wagon will, in most cases, reduce the work of the vehicle more than 50 per cent.

It is vitally important that the battery receive the best possible attention. In cold weather the battery should be well enclosed so that the heat given off in the discharge of the battery will maintain the cells as near as possible at 70° to 80°. We find that with commercial vehicles, unless the customer has more than five wagons, it is better for him to have these wagons charged in a public garage where suitable attention will be given them, rather than try to charge them on his own premises. As soon, however, as the installation comes to a point where the customer can afford to maintain a good man on the job all night, just as good results can be obtained in his own private garage and at considerable less cost.

The rates for charging electric

vehicles should be so arranged as to make it an object for the customer to charge his vehicle during the valley of the central station load. This we accomplish by the use of two meters in series, one of the meters being cut out by a clock-operated switch during the preferential hours, all of the current being registered in the first meter and charged for at a uniform rate; while the current which is re-registered in the second meter during other than valley hours is charged for at an additional rate, our rate being 4c. for the first meter, and 3c. additional for the second, with suitable discounts for quantity. We have found in our work that the charging of our lead batteries at a comparatively low rate, allowing from eight to ten hours, is giving us a very much longer life of plates than the practice of charging the battery at the higher rate; also a very much higher efficiency in the battery. The battery should not be allowed to charge at such a rate as to bring the temperature of the electrolyte higher than 100°. However, if the vehicle is in a very cold garage, and you are unable to get the customer to heat this, it may be advisable for the first hour to charge at a higher rate, in order to heat up the cells, and then continue to charge at a lower rate to finish up. While the electric current is rather expensive for heating purposes, under these conditions it is very much better than charging at a low rate with very low temperatures.

Following is the average rate of consumption of current per mile of various class vehicles for the months of November, December, January,

and February, which shows the additional current required to overcome the snow conditions existing in western New York State:

	Nov.	Dec.	Jan.	Feb.
Electric runabout.....	.637	.733	.876	1.06
1000-lb. delivery wagon	.427	.494	.978	.666
2-ton delivery wagon....	.672	.722	1,044	1.288
3½-ton delivery wagon	.894	.973	1.462	1.480

The snowfall for the months in question is as follows:

November.....	1.7 in.
December.....	14.6 "
January.....	22. "
February.....	42.7 "

Our Company now has in operation for its own work eleven electric trucks and eight electric runabouts, and we estimate that if we were to replace all of our horses with electric vehicles it would save in the operation, allowing 15 per cent for interest and depreciation, 20 per cent over the former cost of maintaining horse and wagon,—this estimate being based on a charge against the operation of electric trucks at our regular rates for current.

We have in Rochester a Vehicle Department in which there are eleven men employed at present. In addition to maintaining our own wagons, we do repair work for any and all users of electric vehicles in our city, charging for this work a price which will show a fair profit; we make a regular inspection of the vehicles of our customers, to see that the batteries are properly charged and maintained, and instruct the customer as to how he should treat his

battery. This branch of the work has very considerably increased our sales, keeping the vehicles at all times in operating condition. The sale of current for charging electric vehicle batteries has increased since 1906, when sales were \$12,458 to \$22,774 in 1909.

Since last July we have purchased from the manufacturers 50 electric vehicles, and during last year the dealers in Rochester sold 120 electric pleasure vehicles.

I wish to call attention to the advantage the insurance companies are giving the electric vehicle over the gasoline car at the present time. I am informed that the only rate quoted for gasoline cars is \$2.50 per hundred, while electric cars, housed in strictly electric garages, carry the same rate as the contents of the class of building in which they are housed, plus 25c. per hundred.

We consider the sale of current for the charging of batteries for automobiles to be one of the most profitable sources of income to any lighting company. The electric vehicle as a commercial substitute for the horse and wagon is here to stay, and if it is not a success in any community it is the fault of the central station management of that community. Each and every central station can well afford to give this class of business the same attention that has previously been given to the motor business, and the writer believes that in less than five years it will be one of our principal sources of income.

A Dollar Idea

A. R. Manley, Supt.
Mt. Carmel Gas & Electric Co., Mt. Carmel, Ill.



ON the night of March 7th four stories in Mt. Carmel were burglarized. In no case were any lights left burning all night. On the morning of the 8th we mailed to every business house in the city a circular letter reading as follows:

BURGLARS.

The best possible prevention against burglars is to leave a light burning in your store all night. The cost will not exceed One Dollar per month.

If you haven't a light that you can conveniently leave burning, we will wire it in for you free.

MT. CARMEL GAS & ELECTRIC COMPANY

There were probably not exceeding five or six stores that kept a light burning all night prior to this time, but inspection reveals the fact that almost, without exception, the merchants are now burning all-night lights.

I estimate that the additional income from this will run about \$100 per month and this business was obtained without any investment on our part.

A Dollar Idea

John G. Learned, General Contract Agent
North Shore Electric Co., Chicago, Ill.



RECENTLY one of our customers gave a "coming-out" party for his daughter. A platform was erected on the lawn and covered with the ordinary circus tent and decorated with electric lights. One of the most important features of the decorations was the use of twenty General Electric 1500-watt luminous radiators.

The installation was eminently successful and received most favorable comment from all the guests. In the suburban town in which it was given it is still much talked of.

There are many times when such social functions would be held out-of-doors if it were generally known that the interior of the tent could be somewhat heated. The novelty of the scheme makes it attractive.

"Specific Reasons Why"

Pertinent Suggestions from a Booklet Published for
British Central Stations

THE Electrical Press., Ltd., of London, originators and publishers of literature for British central stations, has recently revised and amplified the booklet entitled, "Specific Reasons Why Every Tradesman Should Use the Electric Light," which was mentioned in Mr. Glenn Marston's article in the December, 1909, issue of *SELLING ELECTRICITY*. The strongest arguments in favor of electric light as it affects twenty-three different classes of retail merchants are considered and gas competition is the objective.

It is not just apparent how these booklets will be utilized except as they provide the salesman of electric light with pertinent suggestions, for the average merchant is not unduly interested in lines of trade other than his own. A large number of telling points are advanced, however, and are worth consideration.

Some of the strongest arguments are these:

Electric light is best for

BOOT AND SHOE DEALERS, because it saves French kid stock from damage through exposure to excessive heat and the fumes which are given off by gas. This is particularly true of "elastic sides," and the top shelves are as safe as any others.

BUTCHERS, because where the ice-box has to be placed in the shop

a saving of nearly 50 per cent in the ice bill is frequently the result. All kinds of meats are seriously deteriorated in value and flavor by being subjected to the heat and fumes given off by gas. Electric light gives just the right color to the meat—a very important consideration with all butchers. Also, loss of weight caused by the fat melting on the carcasses hung in the shop is practically unknown.

FLORISTS, because electricity is the only artificial light that is absolutely harmless to all kinds of plants and flowers. Even the most delicate ferns are quite unaffected by it—a most important consideration where a large and expensive stock is kept. Also, the electric light has a favorable effect in promoting the growth of certain plants.

FRUITERERS AND GREEN-GROCERS, because many varieties of fruit are purchased green and ripen in the store. The heat and fumes from gas tend to injure the fruit, so that it decays in spots as it ripens.

GROCERS, because it saves the shrinkage in weight, and consequent loss, that occurs on all such goods as moist sugars, cheeses, currants, raisins, etc., when subjected to the heat of a gas-lit shop. It is easier to preserve butter and lard in sound condition, and jams, jellies, etc., are not so liable to ferment. The labels on canned goods

remain fresh, contents do not "work," bacon does not "sweat," and there is no mildew where the air is kept pure and cool.

JEWELERS, because it saves time in the cleaning of all silver, electro-plated and steel goods, which, in the case of shops using gas, is a continual source of trouble and inconvenience. Even 18 and 22-carat gold articles are liable to become dimmed through sulphur vapors given off by gas, causing a film to settle on them. The surface of marble clocks is often "pitted" by the corrosive fumes from gas, but with electric light such troubles are unknown.

PIANO AND MUSIC DEALERS, because it is very difficult to preserve the high polish on pianos where exposed to the fumes of gas. Music also soils and ages when piled on top shelves.

UPHOLSTERERS AND FURNITURE DEALERS, because electric light protects their stock against injury to woolen fabrics, dulling of wood polish, and fading of draperies. Brass bedsteads and

the like become tarnished and "pitted" where exposed to the effects of gas.

PAINT AND OIL DEALERS, because paints, oils and enamels do not ooze from their cans, wallpapers do not become discolored and curl up, japanned goods never flake and peel off,

TOBACCONISTS, because gas takes the moisture out of the air and dries up tobacco and cigars. This can be prevented by the use of electric light.

CLOTHIERS AND OUTFITTERS, because electric light protects rubber goods and woolen fabrics against decay through overheating and impure air. Linens stay white and leather does not harden.

In each case the adaptability of electric light for window and store decorating is featured, but pure air and low temperature is the chief argument. The gas of England is certainly painted in dark colors, but the basic idea of this little book is well taken—it talks to every man in terms of his own trade.

A Dollar Idea

Malcolm H. Baird, Heating Device Salesman
General Electric Co., Chicago, Ill.



GLUE pots, electrically heated, because of their relatively small load do not appeal to central stations as do some devices of a wider application, but in the case of a private plant it frequently happens that the glue pots should be turned on before the private plant is started. This in many cases has been the entering wedge for other light and power services.

The glue pots in one instance are all started by the throw of a switch placed on the outside of the building. This is part of the night watchman's duties.

Increasing the Load on Existing Lines

By E. R. DAVENPORT, SALES MANAGER

NARRAGANSETT ELECTRIC LIGHTING CO., PROVIDENCE, R. I.

Abstract of Paper Read before the Convention of the New England Section of the National Electric Light Association, Boston, Mass., March 16 and 17.

[The introductory and major part of Mr. Davenport's paper was devoted to the power sales methods of the Narragansett Electric Lighting Company. Inasmuch as this subject was very thoroughly covered in an article entitled, "Power Sales Methods in Providence, R. I.," which appeared in the March issue of *SELLING ELECTRICITY*, it is not included in this abstract.]

OUR Special Appliance Bureau is in charge of a heating engineer, having under him five men. To one man is detailed all domestic appliances, including motors less than one horse-power. Another man works exclusively on the sale of motors less than 1 hp. and industrial heating apparatus for factories. In this way the domestic and industrial work is equally divided and good results are secured. The salesman in the display room

also comes under the jurisdiction of this bureau, and the two remaining men are detailed on special work.

We have found that in order to get industrial heating business, it is necessary to go out among the different manufacturers and inquire whether heat is required in small quantities to do any of their work. There is, of course, a great deal of missionary work to be done along these lines,

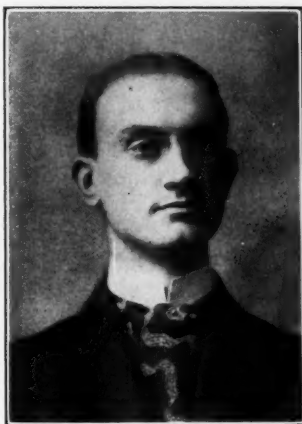
probably more so than in any other branch of selling electricity, but the results usually justify the time spent.

During the past year several fair

size industrial installations were made. One, a silver electrolytic which called for the baking of a silver deposit on glass. This was in the form of a furnace which takes 26 kw. to operate, and for the past seven months has given us a net income of \$154. Another was the installation of electric heaters in a tire re-

pair shop, and for the past eleven months has given us a net income of \$72.

Two 440-w. heaters for melting cocoa beans; one bon-bon heater, max. 1100 w., min. 275 w., for keeping bon-bon filler soft; and two chocolate melters for softening chocolate for dipping purposes, 200 w. each, were made for Huyler's, and on a separate memorandum meter, for one



E. R. Davenport

month showed to total use of 375 kwh.

A medical sterilizer was converted from gas to electricity, making a total wattage of 3360, and with an income of \$3.64 a month. This was for a local physician.

One embossing press head heater, operating 750 w., maximum 3000 w.; one embossing press head heater, operating 250 w., maximum 1800 w.; one glue pot used only in summer, operating 325 w., maximum 1400 w., a total consumption of about 108 kwh. per month, were installed in a blank book plant.

One bacteria slide heater, operating 300 w., was sold to the Milk Inspector of the City of Providence.

One special type soldering iron, operating 220 w., was installed in a small button factory, and brings an income of \$5.60 monthly.

A special heater was made for a slate and gravel roofing company for melting tar in barrels.

A special window-sill heater for residence use was designed, together with a number of special laboratory plates, hot plates, etc.

Practically all the comb factories in this city are using electric heat, replacing other methods. In one comb factory we have as many as sixteen special heating appliances, with a total of 16 kw., giving an annual income of about \$645.

At the present time we have under consideration the designing of a melting furnace for four-ounce platinum. This, if accomplished, will open a very large field here in Providence for gold and platinum melting, especially as there is a large amount of jewelry business conducted in this

city. Also a japanning furnace of 5 kw. has just been completed and connected, to be used for japanning small jet jewelry. We are having a small furnace built for annealing brass bobbins used in lace works. It will be of 5 kw. capacity and it is intended that it shall anneal 100 bobbins in one hour. This would mean 5 kwh. and at 10 cent gross rate, would cost 50 cents. It is intended to do this twice a day, and the present cost of annealing is \$3.00 per hundred.

Practically all of the above industrial heating work has been secured on existing lines, and we estimate roughly that at the present time our heating income amounts to \$28,000 annually.

We are convinced that the work above accomplished is a very small part of what the future has in store for us. Of course, securing industrial heating business is just as desirable as motor load, in view of the fact that current is consumed during the day time, and as stated above is secured mostly on existing lines.

Over 60 per cent of our residential customers already have flat-irons, and during the past year our net gain in connections of special appliances was 46 per cent. The total connected special appliances December 31st, 1909, was 1123 kw., which compares well with the New York Edison's report of January 1st, 1910, which shows a connected load of 1218 kw.

Our company is renewing luminous radiator lamps free, when returned to us burned out. This may be somewhat of an innovation, but the income is quite large from these

radiators, and we think that it justifies free renewal of the lamps.

During last year 107 small motors were sold, which does not include any $\frac{1}{2}$ hp. motors that were sold to be operated through a power meter. There were 21 massage vibrators, 15 vacuum cleaners, 11 sewing machine motors, etc. These sales, of course, were of articles sold direct by the company, and does not include any articles that were sold by the manufacturer or the local trade. Practically all of the blacksmiths in the territory are using electric forge blowers. We intend to purchase several hundred eight-inch fan motors this year and are making an energetic campaign for their sale, believing that there is a large field for this small fan, which has not been covered before.

During the last Christmas holidays, special advertising was done in the newspapers and a booklet issued, and by carefully watching the results, found that 60 sales were made for Christmas gifts, and of these sales 40 were traced directly to the booklet and two sales to the newspaper advertising. We received a total of 65 inquiries from the booklet and 20 from the newspapers. On about July 1st last, a new salesroom was opened in the office which has resulted in about 180 sales, exclusive of 145 trials. In this display room we have connected a one horse-power motor with an indicating and recording watt-meter, and arranged the scale on the indicating watt-meter to read cents per hour instead of watts. We use this for demonstrating to the customer how the current is record-

ed and also that the cost of operating the motor varies according to the load placed on it; having connected to the motor a sort of foot-brake, first allowing the motor to run idle and then by foot pressure on the brake, to demonstrate as near as possible the varying load.

All our industrial heating appliances are grouped in our display room. This gives observers opportunity to get a fair line of what is being done by the company in this direction.

We make a specialty of selling portable reading lamps and have sold quite a number of them. The company has just decided to guarantee all heating appliances for two years against defect, accident, carelessness, or in fact anything. This is a very broad guarantee, but we believe it to be good judgment.

We carry a \$5000 stock of heating appliances and expect to increase it.

We also have a small repair shop where appliances are repaired without returning them to the manufacturer. A saving in time is effected and we have a number of appliances on hand to loan customers while their own is being repaired.

Our Lighting Department consists at the present time of but five men, including an Illuminating Engineer in charge. Plans have been perfected, however, of materially enlarging the size and scope of this branch of our selling force.

Our entire territory is divided into districts, each man being given a certain section, limited to that section, and expected to develop its possibilities according to his own best

judgment. The city is so sub-divided that each salesman has a portion of the business and residential sections. A fairly close watch is kept on the work of each individual salesman, and periodical tours of inspection are made over the various sections by the Illuminating Engineer for the purpose of assuring himself that nothing is being overlooked.

Our efforts are mainly directed to developing the business sections of the city, and I dare say the merchants in all the various territories are solicited at least once every month. Residential work is not solicited excepting such as may be in course of construction or undergoing repairs. For the purpose of following up the latter item with a view to securing all the new and a goodly portion of those older houses undergoing repairs, we keep a close watch on the building permits as issued from the office of the Building Inspector. Of the new dwellings erected, between 80 and 90 per cent are being wired for electric service. Approximately 25 per cent of those older dwellings undergoing any material repairs are also being wired for electric lighting.

Our yearly returns of business secured by our lighting salesmen has averaged about 7,000 16 cp. equivalents per man, of strictly new business.

Some little time has been devoted to the design of new installations

and the correction of old ones with highly satisfactory results in general, but the work on an elaborate scale is not encouraged yet, owing to the inability of our small force to devote the necessary time to it. Eventually, I feel that work of this nature must be undertaken and we are gradually equipping ourselves for the work. The same is almost equally true of matters pertaining to electric sign advertising.

Our experience with tungsten lamps covers a period of but about ten months, during which we have installed some 25,000 lamps, mostly of the 250-v. type and this with little or no advertising. Our largest single installation of tungsten lamps is one of 3,250 in one of the local dry-goods stores. All of these lamps are of the 250-v. type. We have in round numbers 350 signs in nightly operation, including lamp letter, transparency and border lighted. All single light signs are ignored on our records.

In all matters pertaining to the use of electricity for lighting purposes, the company adopts a broad and liberal policy in the matter of any investigations desired, and offers to those using a combination gas and electric system the same inducements relative to the trial use of service for a three months' period, where the monthly consumption would warrant our wholesale schedule of charges.

A Stage Demonstration of Power Salesmanship

THE Business Science Club of Toronto, Canada, recently invited Messrs. Thomas E. Spence and J. E. Bullard, Power Engineers, for the Toronto Electric Light Company, Ltd., to give a demonstration before its members of the modern methods of selling electric power. This club is composed of the most progressive merchants and business men in the city, who have organized for the study of commercial methods and meet from time to time to listen to lectures and demonstrations by various expert salesmen. Among the members were a number of manufacturers who had been considering the installation of electric power, but who were still looked upon as doubtful prospects, consequently this presented an exceptional opportunity to lay the power proposition squarely before the interested public and the invitation was accepted with alacrity.

Messrs. Spence and Bullard appeared on the stage as salesman and prospect, and enacted the developing of a power contract from start to finish. Mr. Bullard acted as salesman and Mr. Spence as prospect, the latter giving a preliminary talk and outlining the subject. The salesman then called and after overcoming the objections of his prospect, secured permission to make tests on the engine and machinery and in-

spect the factory. He then withdrew and in the interim Mr. Spence explained the proposition a little further, and read a letter which had ostensibly been received by the prospect, giving the results of the test on his plant and recommending the installation of electrical equipment.

The salesman then made a second call presenting his report and after it had been discussed in detail, succeeded in persuading the manufacturer that electric power would be far more economical than his present mode of operation. A third call followed and closed the deal.

In the course of the demonstration the prospect advanced all of the arguments usually advanced by the man prejudiced against electric power and wedded to the old way, and this enabled the salesman to bring out all the sustaining points which a central station can cite. The members of the club were very much interested and participated freely in the general discussion which followed, asking all sorts of questions as to the application of the proposition to their own power conditions. This newly aroused interest is being systematically followed up, and it is expected that the demonstration will be productive of considerable business for the Toronto Electric Light Company.

An Incident in Norfolk, Neb.

RIGHT now a good many central station men are considering the question of the spring campaign for heating business. To those (if such there be) who are inclined to question the value of the electric iron, as a staple revenue producer, perhaps this story of an experience last summer in Norfolk, Nebraska, may be of interest.

Mr. E. A. Bullock, the manager of the Norfolk Electric Light and Power Co., in recounting the occurrence, said:

"In June we had a serious accident at our plant which necessitated an absolute shut-down for one whole week. As we furnish power to almost every little industry in the city, including the daily paper, steam laundry and bakery, you can imagine that it caused a good deal of inconvenience to our power patrons to have this service interrupted. Traction

engines and little gasoline engines were brought into service from every direction.

"But the complaints from our power patrons were as nothing as compared to the complaints that we received from the ladies who had become accustomed to doing their ironing with the electric flatiron. They were more frequent in their calls inquiring when they would get the service and they made the strongest complaints of any customers we had; in fact, all of our customers except the aforesaid ladies took the accident in a matter-of-fact way, knowing that it could not be helped. But we found that when a woman has learned to use an electric flatiron, even if she has all the old appliances right at hand, she will not be deprived of it without a forcible protest."

A Dollar Idea

H. N. McConnell, Manager Commercial Department
The Colorado Springs Electric Co., Colorado Springs, Colo.



NEAR our Cashier's window, from the first to the tenth of the month, during our discount days, we place an electric iron, inverted, and on this we set a small vessel filled with water. We leave the current turned on and the water is kept boiling constantly.

Directly back of this outfit we have a card about 12 by 14 inches with the following wording, "Do you use your electric iron for emergency heating, cooking, as foot-warmer or for babies' milk at night?"

Since installing this little advertising stunt we have heard a number of ladies exclaim, "Why, I had never thought of that!" "It is a good idea," etc!

Leading vs. Lagging

Not Only Long-Headed, but Broad-Minded Policies are Necessary in
Central Station Commercial Success

By W. E. BAYARD

I ONCE knew a young man who was practically ruined as a central station salesman through the well meant but misdirected efforts of his sales manager. It was the theory of this manager that, in order to be of the greatest assistance to his men and of the highest value to his company, he should keep himself in constant and continuous touch with the coming and going of each member of the sales force, and that he should both guide and follow them in every move. "I believe in being long-headed," was his explanation of this method, entirely forgetful of the fact that it is just exactly as necessary to be broad-minded.

The theory of close supervision and attention to detail, when properly governed and applied by a broad-gauged man, is undoubtedly correct, but in this case it acted as a direct break on the wheel. For this manager occupied the greater part of his time with petty details which should have been left to the judgment and discretion of the men, and the men, in turn, were continually hampered by minute and specific instructions which served only to complicate their work and lessen their efficiency. The chief had no time to give to the developing and furthering of new ideas and creative policies, and the men were discouraged from thinking for themselves or acting upon their own judgment. The result was that greatest of commercial calamities—throttled initiative.

Analysis of the character of any

successful sales manager, either in or out of the central station field, will reveal the foundation of his success as summed up in one word—INITIATIVE. Without initiative no man can develop bigness. Without initiative no man can be a business creator. Without initiative no man can really succeed, for the competition is today so keen that real success can no longer be won by following the crowd or adapting second-hand policies and methods; it comes only to the man with the courage and ability to blaze a trail into the unknown.

This becomes more and more apparent as the standard of central station sales efficiency is raised. At the close of the dark era, not so far distant, when the public first began to realize that lighting companies had adopted the attitude of other merchants toward their customers, almost any species of sales effort brought results because the field was virgin and every tree held a fair proportion of ripe fruit ready to drop. As we have progressed, however, the business of selling light and power has gradually settled down to a solid basis and present-day records of contracts represent genuine salesmanship rather than mere order-taking.

This condition has developed a demand, not only for men of brains and ambition, but men of initiative—men who are not only long-headed but broad-minded. It is not enough that we sell our product to people who want it; we must make them

want it. It is not enough that we employ and direct the efforts of our own sales force; we must employ and direct every force that can contribute to our growth. And this requirement for initiative applies to the youngest salesman no less than to the official who directs the public policy, and it is worth every cent of money and every hour of training that it costs. The underlings must learn or be taught to apply initiative in their small transactions; the sales manager must learn to apply it in a large way in formulating policies. There is no place in the central station commercial organization, nowadays, for the human rubber stamp or for a man who works like a beagle hound with his eyes and nose always on the ground.

Initiative is most plainly displayed by the way in which we employ assistants, both our own hired assistants and those on the outside. No business in the world, perhaps, can be so harmed or helped by outsiders as ours. Take the attitude of the contractors as a single example. In dealing with them, we have our choice of methods between supine cringing, rough-shod indifference and helpful co-operation. Unfortunately, the first two methods have, in the past, prevailed most largely. Few men, of course, will admit either the yellow streak or bull-necked indifference to the rights of others, yet it is a fact which only requires the smallest observation to verify, that the average central station is either afraid of or brutally indifferent to the contractors in its territory. The big stick and the bended knee are a whole lot more common than courageous, upright co-operation. And

the reason is that this sort of co-operation requires initiative. Men talk co-operation today from one side of the continent to the other, but co-operation without courage and initiative on both sides is a hollow sham.

Well nigh every convention of lighting men held within the past five years has listened to one or more papers on co-operation with the contractor—yes, and there can hardly be found one central station man in ten, who, if the question is put, will not call himself a Co-operator (with a big C) and solemnly affirm that he is losing no opportunity to work in harmony with the local electrical interests of his town. If the evidence were brought into court, however, it would generally develop that the co-operation exists in large measure in the central station man's mind. Either he is cutting the contractors' throats by selling appliances or even doing wiring at cost or at a loss, or he is letting the contractors use him for a "good thing" while they charge exorbitant prices and foster the installation of isolated plants.

Co-operation is founded upon the Golden Rule, and in a very positive sense. It does not mean refraining from doing things you have the power to do, nor does it mean turning the other cheek when struck. It means doing the square thing for the good of all concerned. In our business, it means taking the initiative to develop a mutual market. Here is a concrete illustration:

A New England lighting company used to sell motors at cost, and through its motor agency agreement was able to put a price on motors which closed the market to the contractors. The

latter, having no motor market except the isolated plants, naturally fostered these plants as aggressively as possible, with the assistance of engine manufacturers, boiler salesmen and the gas company. A sales manager went to this lighting company who had an idea or two beyond the mere filing of reports—a man with initiative, resource and courage. He persuaded his company to adopt the plan of stocking all sizes, types and makes of motors; he placed these stocks in the hands of the different contractors, giving each man the exclusive agency of one make or type; he sold the motors to the contractors at his cost plus cartage for use exclusively on his company's circuits. Result: A city full of motor agents pledged to work in the interests of the lighting company, profit to these contractors on every motor that went on circuit, and an entire secession of the isolated plant propaganda.

Another instance:

A western lighting company realized that in order to get a large number of unwired houses on circuit it would have to adopt unusual methods, so it stocked a quantity of cheap fixtures and advertised a flat rate wiring proposition with an installment feature. The contractors, of course, were up in arms. They demanded that the lighting company get out of the fixture business, and under the previous sales management this bluff would have worked. However, the sales manager who devised the scheme saw the contractors' committee and explained three features of his plan: (1) his company only sold four styles of unit and these would not satisfy any but the poorest homes; (2) every home wired meant another customer for the contractors, because the company would not sell or supply anything but the initial installment installation; (3) if a prospective customer wanted anything more or better than the fixture offered he would be referred to the directory of contractors and the lighting company would carry the account in the same manner

as they carried the cheaper accounts on an installment basis. The contractors, therefore, would have a much wider market in which to operate and also they would receive the advantage of a large advertising campaign which the company was to carry on.

These are two examples of the kind of co-operation which follows initiative. They are positive, courageous ventures into the realm of the untried. Negative co-operation is the policy of the brute or the jelly-fish; but positive, open-minded, never-halting team work is the only kind that will satisfy the grown man. Its basis is initiative and the basis of initiative is breadth of mind as well as length of head.

The reason, probably, that we have too little of this policy in the central station industry is because we have so long looked upon our proposition from the standpoint of the old school monopolist. Competition not being a harassing factor in our development, we have gradually sunk into the habit of directing our energies to the perfection of details. Our report systems are marvels of completeness; our grasp of detail is enough to make the wholesale grocer gasp. But because we are so engrossed in the minutiae of routine, we have forgotten, or never learned, that the basis of commercial success lies in clear-brained planning, a broad perspective and a system of management that leaves us free to plan as well as to scheme.

It is no exaggeration to say that the industry, as a whole, has not yet learned the A B C's of commercialism. We thought we knew much when we discovered that a little effort in order-taking would lead to large results, but now that the "easy picking" is gone, we are discovering that we must blaze new trails to win entire success. Management which wastes our energies in detail work, policies which antagonize or give our growth or withhold any part of our rightful market for profits—these must give way to a new order, and if we cannot lead, at least we must not lag.

Electrical Progress Department

First Installation of 500-watt Mazda Lamps

To Buckeye Electric Company of Cleveland belongs the credit for making the first commercial installation of 500-watt Mazda lamps. The installation is on the main floor of the new Halle Brothers store in Cleveland and consists of 30 of these new units in opal spheres. The lamps have been entirely satisfactory. They burn at an efficiency of practically one watt per candle, and in the first two months of practical service not a lamp has broken or failed.

The Halle store is a beautiful 12-story structure and is equipped with Buckeye Mazda lamps throughout. The *Dry Goods Econ-*

The Buckeye Electric Company is justly proud of having been the first to prove the practicability of the 500-watt Mazda in commercial service.

Some Good Points of Excel Heating Discs

Because electric heating discs are generally round and about the same diameter, height and appearance, the public can be easily imposed upon by unscrupulous dealers in and out of the electrical trade. It is distinctly up to the central station man to know the merits, or demerits, of the apparatus and to be ready to sell—or at least recommend—devices that will promote increased confidence in the reliability of electric service.

The Excel Electric Heating Company, 52 Lawrence street, Newark, N. J., is selling heating discs of 4½-inch, 6-inch and 8-inch diameters on a plan designed to save lots of trouble for the central station. In addition to the sturdy design of the heater the manufacturer gives a cast iron guarantee against trouble for one year from date of sale to the consumer. This insurance is ingeniously accomplished by enclosing with each disc a postal card for the purchaser to return to the manufacturer with date of purchase and where bought. The Excel Company then stands ready to take up with customers any and all complaints until the expiration of the guarantee.

Mechanically, the details of the Excel heating discs are similar to the 1910 types of flat-

irons and other heating devices made by the same company. The separated attaching plugs at the disc are a handy feature. The patented heating element consists of two flat mica sheets with special resistance wire between, the whole bound together by rivets without any cement or enamel. The top of the stove is only 3/16 inch thick giving instant heat with high efficiency.



omist says, "We are informed by the management that up to the present there has been little or no need of taking merchandise to the door or where it could be examined under daylight, as all colors show up quite satisfactorily under the artificial illumination; especially on the first floor, under the light of the 500-watt lamps, is the satisfactory matching of colors made possible."

His "Dollar Idea"

Mr. J. E. Tucker, the general manager of the Greenwood Advertising Company of Knoxville, Tenn., spends a good bit of his time among the central stations. We asked him to keep his eyes open for Dollar Ideas and send in any news from the South that he might run across.



He sent back this photograph on a post card and said, "Here's the Dollar Idea that helps me make most of my sales. But I'm afraid nobody else can use it, though it has sold more signs in the South than any other one thing. I think, however, that if any central station wanted to try it out, it could be arranged."

An Explanation

In the April issue of **SELLING ELECTRICITY**, through an unfortunate error on the part of the printer, the advertisement of the Federal Sign System, Electric, was signed "Federal Electric Sign System."

Sales Schemes for Hylo Lamps

The Economical Electric Lamp Company, 25 West Broadway, New York, is securing the co-operation of central stations throughout the country in vigorous publicity campaigns to push the sale of "Hylo" and "Economical" turn-down lamps.

Besides distributing folders and cards, supplied by the manufacturer, many companies are using special methods, such as periodically printing cuts of turn-down lamps on their bills, pasting advertising "stickers" so that a flap covers the amount on the customer's bill, or mechanical window displays. One large lighting company so fully appreciates the revenue boosting qualities of the turn-down lamp that it presents several of them free to every new customer.

A 2-Hp. Coffee Roaster

Coffee roasted by the retailer has a character that commends it to the careful buyer and many grocers are doing their own roasting. As far as can be ascertained there are no roasters made in this country using electric heat but the Burns apparatus which uses a 2-hp. General Electric motor. The outfit has a capacity of half a bag (about 70 lbs. of green coffee) and if operated continuously will easily turn out ten bags per day.

The roaster is a complete plant in itself performing the operations of roasting, cooling and stoning on the same principles as in the large machines. A word or two from the central station power man may be all that is needed to put more of these machines into service and increase the sale of day-load current among grocers and stores which specialize in teas and coffee.

**Design 39704**

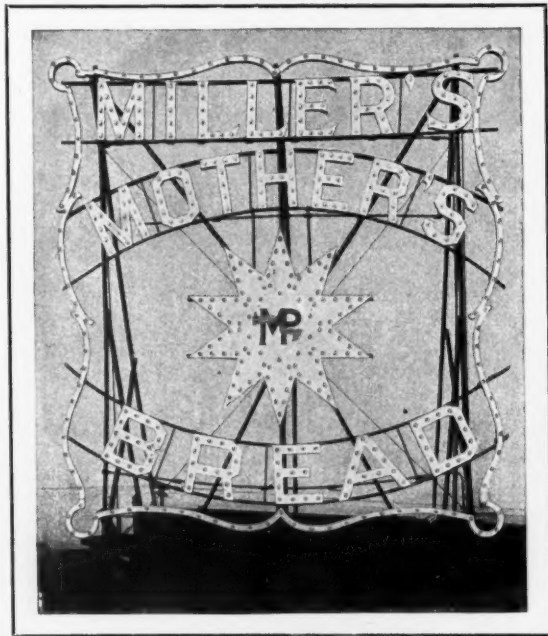
**Elmer P.
Morris Co.**

94 West St.
New York

**Lighting
Specialties**

We Make Electric Signs

Federal Porcelain enameled steel Sectional Letter Signs are now being manufactured in our factory in New York City. These standard signs are too well known to need description. Dealers, Contractors and Central Stations in the Eastern States can now be supplied promptly from New York.



We make also: Special Signs, Roof Signs and Display Signs of the usual all-steel Federal construction. Novel flashing effects and special designs are carefully worked out by our experts.

If you are contemplating the purchase of an Electric Sign, write us for estimates. Our ideas and services are yours for a post-card.

Federal Sign System (Electric)

229-231 West Forty-Second Street

New York, U. S. A.

Free Electric Signs

Don't imagine that a Free Sign Proposition pays only in the large towns. Twenty-six electric signs, picked at random from hundreds installed on a rental basis, added to the annual income of the Central Station installing them an average of \$346.96 PER SIGN. Three such signs bring in an income of over \$1,000.00 per annum. There is no town in the United States large enough to support an electric lighting plant that cannot add several thousand dollars to your income if you start the ball rolling.



The time to start a Free Sign Campaign is now, when merchants are interested in improving the appearance of their stores. We will gladly send a sign expert to help you. In one town thirty signs were contracted for in the first month.

Write us to-day for full particulars and a sample contract, together with complete information concerning the best signs for a free proposition.

Federal Sign System (Electric)

229-231 West Forty-Second Street
New York, U. S. A.

We are in need of
Several Good Solicitors
to canvass for
Large Industrial Power Work
also a
Salesman
to Push
The Installation of Electric Signs

Consolidated
Gas, Electric Light & Power Company
of Baltimore

Commercial Department—Electric Division
Continental Building
Baltimore, Md.

GIVE YOUR CUSTOMERS



THIS IRON

The heating element is of wire fused to the bottom in enamel. No air space to retard the heat downward, but a large air space above keeps the top cool. Every inch of the heating surface is effective.

A Simplex Iron sold to a customer brings satisfaction from the start and leads to other heating devices.

The best of material and workmanship is put into every Iron and carries with it, wherever it goes, a Simplex Guarantee for Quality.

We not only manufacture Irons of the highest grade but every device that can be heated by electricity. Put your heating problem up to us and get apparatus that will last.

Write for Booklet "K."

This Trade Mark



Stands for Goods Made on Honor

SIMPLEX ELECTRIC HEATING CO.

Cambridge, Mass.

Monadnock Block, Chicago
612 Howard St., San Francisco

THE DELCO Combination Set



List Price \$20.00. Consumes 500 watts.

Three utensils and one heating element. A complete epicurean meal may be prepared with this combination set. : : : : :

Delco Three Heat Iron — Just Out.

Diamond Electric Co.

BINGHAMTON, N. Y.

THE MODERN ARC LAMP

It Pays the Central
Station to Investigate

DAYLIGHT LAMPS

Keep up the Quality
and Reliability of your
Service by using the

BEST SMALL ARC MADE

Write today to

Volkmer Electrical Company

585 Hudson St., New York

Allegheny County Wants More Factories

**and we have a very low power rate
for Industrial Power to attract them**

The Allegheny County Light Company

Pittsburg, Pa.

serves

56 Municipalities

**We have power experts always at the service
of our patrons — present and prospective**

In writing to advertisers, mention "Selling Electricity"

More Profit From Residence Lighting Than from Power

IF _____

You adopt a **CONTROLLED** flat rate and use **Excess Indicators** to **INSURE** your income. **Residence lighting** is the most vital subject now confronting the central station commercial man. It is a two-phase problem,---(1) How can it be secured?---(2) How can it be made profitable?

We have solved both of these problems for others, and are prepared to do so for you.

Excess Indicator Company

74 Cortlandt Street

- - New York City

How Any Ambitious Man Can Be a "Plutocrat"

When the list of stockholders of the United States Steel Corporation was published the other day, many people noted with surprise that many prominent men of all vocations held but a few shares—worth, according to the quotation of the day, just \$81.87½ each. Yet these small holdings enable them to participate in stockholders' meetings, have a voice in the management, even act as officers of the corporation. Each man as a stockholder "belongs on the inside."

This being "on the inside" is one of the secrets of success. The man who has money in a large enterprise involuntarily studies the workings of that enterprise, feels responsibility for it, gets to know the whys and wherefores of big business, learns to think in big figures. He becomes, in short, a business man instead of a mere wage earner. Most people think that it takes a great deal of money. It doesn't.

Now this is an appeal to young and ambitious men in the central station industry to "belong." You should, first of all, own a share in your own company. After that, shares in one or two other companies which are notably successful and progressive. The knowledge of inside facts which you will gain as a stockholder will be invaluable. The substantial and assured feeling which ownership of dividend-paying stocks inspires is worth more to you than an increase in salary.

We handle seasoned and proven stocks in successful gas and electric companies. We execute orders of from a single share up.

Get your name on our mailing list.

WILLIAMS, McCONNELL & COLEMAN

60 WALL STREET, NEW YORK

Note our New Address—36 West Twenty-Eighth Street



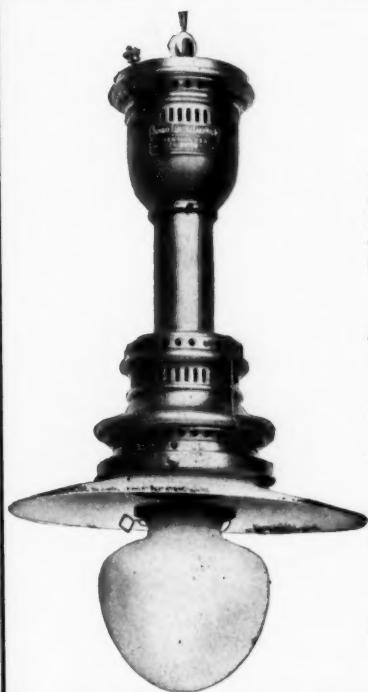
UNIQUE

Portables
Electroliers
Novelties in Shades
Every Piece a Good Seller

Unique Art Glass & Metal Co.

Factory:
BROOKLYN, N. Y.

Salesrooms :
36 West 28th St., NEW YORK



It's Heads I Win Tails You Lose

With most modern "High Efficiency" Lighting. The current saving is there all right, but what good is it if you have to spend it again on renewals for incandescent lamps; or carbons, labor and repairs for short-life delicate Miniature Arc lamps.

The Real Solution is The Sunray High Efficiency Arc

A pure white light of 460 *actual* candle-power for 450 watts. 1000 hours on ten trims of carbons at a total cost of 50 cents and always on the job.

Looks good on paper, doesn't it?

We are ready, willing and anxious to prove it. Lest you forget write now.

Sunray Electric Lamp Mfg. Co.
105 West 42d Street, New York

In writing to advertisers, mention "Selling Electricity"

New Buckeye Central Stations

Buckeye Co-operative Campaigns for Incandescent Lamps and Central Station Customers

THE Buckeye Electric Company has secured and now offers to its central station customers a series of advertising campaigns designed to increase the market for incandescent electric light and, consequently, for incandescent lamps. These campaigns represent a very large investment, but are offered upon a co-operative plan whereby the central stations may take advantage of them at a very small part of the cost. This plan our representatives are prepared to explain in detail to all who may be interested.

THE BUCKEYE ELECTRIC COMPANY

Main Office and Works CLEVELAND, OHIO

BUCKEYE AGENTS

Frank H. Stewart Elec. Co., Philadelphia, Pa.
Post-Glover Elec. Co., Cincinnati, Ohio.
Wheeler-Green Elec. Co., Rochester, N. Y.
Dunham, Carrigan & Hayden Co., San Francisco, Cal.
Nebraska Elec. Co., Omaha, Nebr.

Erner & Hopkins Co., Columbus, Ohio.
Hide, Leather & Belting Co., Indianapolis, Ind.
W. C. Teas, Chattanooga, Tenn.
C. Reiter Electric Co., Dayton, Ohio.
O. J. Goettmann, Pittsburg, N. S., Pa.
Springer & Patterson, Pittsburg, Pa.
Carter Elec Co., Pittsburg, Pa.

In writing to advertisers, mention "Selling Electricity"

al Station Advertising

*for Increasing the Market for Electric Light
are Now Ready for Our
ion Customers*

THE Buckeye central station advertising covers the fields of residential, commercial, and industrial lighting. Over fifty pieces of direct-by-mail advertising, and designs for forty newspaper advertisements are included. They are designed to fit all manner of central station conditions, in addition to which the Buckeye advertising department is prepared to re-cast any of the pieces to exactly fit peculiar local requirements. This flexibility entirely removes the campaigns from the class of "stock advertising."

YE ELECTRIC CO.

Works CLEVELAND, OHIO

BUCKEYE AGENTS

Dauphin Electrical Supply Co., Harrisburg, Pa.
Chas. E. Sharp, Security Bldg., St. Louis, Mo.,
Agent Republic of Mexico.
B. S. Sprague, Marietta, Ohio.
Brown-Woods Elec. Co., Houston, Texas.
W. L. Cumiskey Co., Syndicate Trust Building,
St. Louis, Mo.

Marrs-Tanner Elec. Co., Danville, Ill.
Mohawk Elec. Supply Co., Syracuse, N. Y.
Roekel Plbg. & Elec. Co., Zanesville, Ohio.
Percival & Jones, St. Louis, Mo.
Trotter & Walker Elec. Co., Decatur, Ill.
DeFrance & Strub, Toledo, Ohio.

In writing to advertisers, mention "Selling Electricity"

SECOND-HAND

ENGINES, GENERATORS AND BOILERS

Also Miscellaneous Apparatus
FOR SALE AT LOW PRICES

Any Central Station requiring this type of equipment, for either regular or auxiliary purposes, can obtain the apparatus advertised at bargain prices.

Engines

- 1 1000-1300 H. P. Cross Compound Condensing Engine; size of cylinders: high pressure 24 in. dia., low pressure 40 in. dia.; stroke 48 in.; fly wheel 20 ft. in dia., 60 in. face. This engine is in first-class condition.
- 1 100 H. P. Buckeye Engine.
- 1 100 H. P. Kensington Engine.
- 1 18x36 in. Watts Campbell Corliss Engine, 90 R. P. M., driving through jack shafts and belts.
- 1 11x19x11 in. Westinghouse S. A. A. Compound Engine, 300 R. P. M., belt drive.
- 1 9x15x9 in. Westinghouse S. A. A. Compound Engine, 350 R. P. M., belt drive.
- 1 250 H. P. Westinghouse Engine (crank and cylinder broken).

Generators

- 1 Stanley, 2 P. 2,500 v., 360 kw.; generator, 152 R. P. M., alternations 8,000, with a 2 P. 60 v. 1,175 R. P. M. 6 kw. C. C. exciter. This generator is direct connected with a Williams vertical engine.
- 1 Stanley S. K. C. 3 bearing 2 P. 60 cycle 2,400 v. 240 kw. 450 R. P. M. belted generator, complete with Crocker-Wheeler, type D 4 kw. 65 v. 61 1-2 amp. 1,100 R. P. M. exciter.
- 1 Westinghouse 150 kw. 2,200 v. single phase, 60 cycle generator.
- 1 Fort Wayne 75 kw. 1,050 v. 125 cycle generator.
- 1 Westinghouse 60 kw. 1,050 v. 125 cycle generator.
- 1 Westinghouse 60 kw. alternator, 1,150-1,050 v. 133 cycles 1,650 R. P. M.
- 1 Westinghouse 25 kw. alternator, 2,216-1,050 v. 133 cycles 2,000 R. P. M.
- 1 Westinghouse 50 kw. alternator, 1,709-1,050 v. 133 cycles 2,000 R. P. M.

Boilers

- 1 150 H. P. Return Tubular Boiler, 90 lbs. inspection.
- 1 100 H. P. Kensington Boiler, 100 lbs. allowed.
- 1 60 in. x 16 ft. Duplaine Return Tubular Boiler
- 1 52 in. x 12 ft. Muckle Return Tubular Boiler
- 1 150 H. P. Berry Boiler.
- 2 100 H. P. Return Tubular Boilers.

Miscellaneous

- 2 Pumps, 4x6x4 in.
- 1 Air Compressor for deep well, 5 1/2 x 6 x 7 in.
- 1 5,000 gallon tank.
- 1 Westinghouse Panel Switchboard.
- 1 Round Voltmeter.
- 2 Rheostats.
- 2 Closed Feed Water Heaters.
- 1 U. S., 4 kw. 125 v. 2,400 R. P. M. exciter.
- 1 Ft. Wayne 2 kw. 125 v. exciter.
- 1 Westinghouse 3 kw. 125 v. 1,600 R. P. M. exciter.
- 1 Worthington 4x6x4 in. Pump.
- 1 Westinghouse 1 kw. 125 v. 1,350 R. P. M. exciter.
- 1 Westinghouse 1 kw. D. C. 125 v. 2,250 R. P. M. exciter.
- 1 U. S. 1 kw. D. C. 125 v. 2,400 R. P. M. exciter.
- 1 Worthington 6x4x6 in. Boiler Feed Pump.
- 1 No. 7 1-2 Sellers Injector.
- 1 Collins Damper Regulator.

If interested communicate promptly with H. C. Lucas, Purchasing Agent, at address given below. Full particulars forwarded you upon request, together with prices. We will be glad to make appointments for inspection of any or all of this apparatus.

The Philadelphia Electric Company

10th and Chestnut Streets
Philadelphia, Pa.

HYLO -- ECONOMICAL TURN DOWN LAMPS

Hylo Pull String

Hylo Turn Bulb

Hylo Long Distance

Economical Pull String

Economical Turn Bulb

Economical Long Distance

**AND "MAZDA" IN ALL TYPES
SAME AS HYLO-ECONOMICAL**

Write for Descriptive Literature and Prices

Economical Electric Lamp Company

25 West Broadway, New York



18 Million Readers Have Learned the Advantage of Electric Lighting.

Every month since last September millions of readers of the most widely read magazines, have learned that electric lighting with its many advantages, is now well within the means of all who live within the borders of a lighting circuit.

Thousands of these readers have written for further information, proving that a widespread interest has been created. Many of these inquirers stated that they were using other methods of lighting; the arguments were reaching not only the non-user of electric service, but also those who feel the need of more light.

From coast to coast lighting companies have written favorably of this campaign because they have found it helpful in extending the use of electric lighting on their circuits.

This extensive advertising in the popular magazines is but one part of the widespread campaign to popularize electric lighting with MAZDA lamps.

General Electric Company

These Trade Papers Help You to Sell More Current

In addition to the widespread advertising in the popular magazines, the campaign for more *electric* light is also carried on through the columns of a long list of representative trade papers.

Bankers, building managers, hotel owners, manufacturers, shoe dealers, hatters, haberdashers, clothiers, furnishers, dry goods men, furniture dealers, house furnishers, jewelers, druggists, hardware dealers, and others have learned that an electrically lighted store is a business asset--that brilliancy brings business.

One of the quickest and best ways to reach the influential members of a particular trade is through the columns of the journal published in the interest of that trade. These trade papers contain information vital to the trade, and are read with keen interest.

In these papers the same arguments are used by the General Electric Company that you would use to induce business men to use your service.

This broad campaign makes it easy for you to extend the use of electric lighting on all parts of your circuit.

Main Lamp Sales Office

Harrison, N. J.

Principal Office

Schenectady, N. Y.

LIST OF SALES OFFICES:

Atlanta, Ga.	Denver, Col.	Philadelphia, Pa.
Baltimore, Md.	Detroit, Mich.	Pittsburg, Pa.
Boston, Mass.	(Office of Sol'g Agt.)	Portland, Ore.
Buffalo, N. Y.	Indianapolis, Ind.	Richmond, Va.
Butte, Mont.	Kansas City, Mo.	Salt Lake City, Utah.
Charleston, W. Va.	Los Angeles, Cal.	San Francisco, Cal.
Charlotte, N. C.	Minneapolis, Minn.	St. Louis, Mo.
Chicago, Ill.	Nashville, Tenn.	Seattle, Wash.
Cincinnati, O.	New Haven, Conn.	Spokane, Wash.
Cleveland, O.	New Orleans, La.	Syracuse, N. Y.
Columbus, O.	New York, N. Y.	



Proof of the Lighting

Turn NIGHT into

The metal filament of the wonderful G.E. gives twice the light of an ordinary incandescent—vastly better light—and

Uses

Magnifies the Light 10

This wonderful Lamp gives twice the light of the ordinary incandescent—and uses less current.

Vastly better light

"Twixt a Diamond and a Moonstone"

There's no G.E. MAZDA than between the

His Only Rival

General Electric MAZDA LAMP

Sold by

General Electric MAZDA LAMP

Electric LAMP

Electric light is the king light for Home, Office, etc.

"What is this, George?"

"Why, it's a wonderful new lamp"

Light of an ordinary better light—and uses less current"

Electric LAMP

Electric light is the king light for Home, Office, etc.

Take Advantage of this Newly Aroused Interest in Electric Lighting

To reap the full benefit of the universal interest in electric lighting created by our general advertising, start a local campaign of your own. You can crystallize general interest into a particular local interest—the inevitable result of which will be the sale of more current to more customers.

A series of out-of-the-ordinary street-car cards and newspaper advertisements, brimful of result-getting arguments, brings the kind of results that keep a new business department hustling from daylight to dark.

You can do that kind of advertising without having to employ a staff of artists and advertising experts because the entire advertising department of the General Electric Company is at your service. Advertising experts have prepared a series of car cards and newspaper advertisements that will build up the volume of your business by adding to your customers' list the present non-user of your service and by increasing the amount of current used by present customers.

These newspaper advertisements, electrotyped and all ready for your local printer, will be furnished free of charge to progressive lighting companies, together with a full series of street-car cards, imprinted with your firm name.

It is decidedly to your advantage to write at once for complete particulars. Address

General Electric Company
Advertising Department
Schenectady, N. Y.



May,

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one, O'Brien, Tex

Light 10

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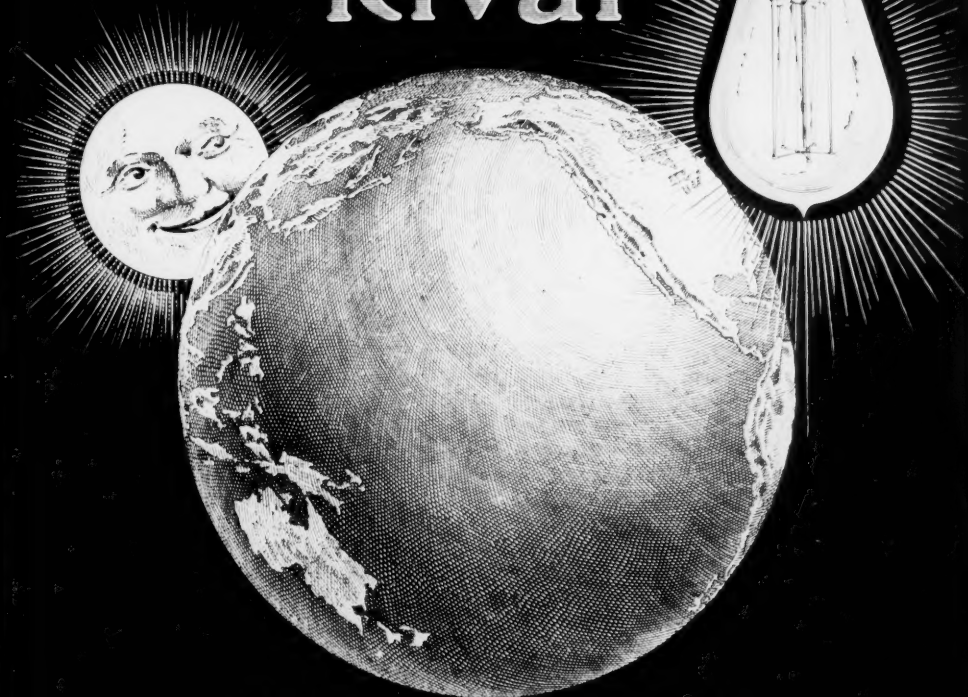
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His Only Rival



Get cheaper electric light
from the Sun's Only Rival

General  *Electric*
MAZDA LAMP

Order from your electric light
company or dealer, or write to

General Electric Co.-Schenectady, N. Y.

An Organization that Offers Opportunities

THE Narragansett Electric Lighting Company offers exceptional opportunities to ambitious men in its commercial department.

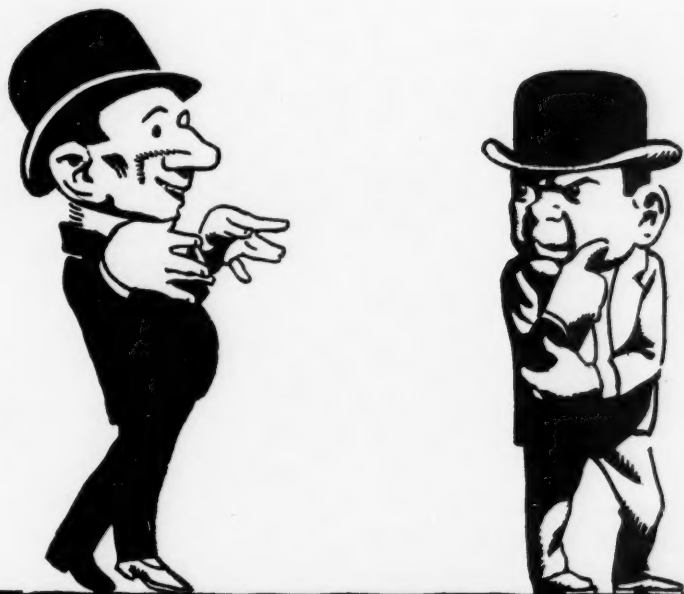
This company to-day ranks among the half-dozen most progressive central stations of the country. It serves a territory covering the city of Providence, several other very active merchandising centres, and many busy industrial towns.

Its power house and distributing system are constantly and rapidly being extended. Its commercial department has quadrupled in size in the last four years and includes every desirable feature of which we know.

The company is desirous of adding to its staff a few men of exceptional ability and more-than-ordinary ambition. The salaries paid are adequate; the living conditions in Providence, and environs, are excellent and the organization one to which it is both a pleasure and an honor to belong.

Correspondence confidential.

Narragansett Electric Lighting Company
Providence, Rhode Island



CONVERSATION

NO LONGER SELLS LAMPS

Once upon a time it was the lamp salesman with the best talk who got the biggest orders. Not any more! Nowadays it is Lamp Quality that does the talking — that's why BANNER Lamps lead.

BANNER quality has never been beaten — BANNER service is up-to-the-minute — BANNER stocks of every size and type are thoroughly complete and ready-to-ship.

Try one lot! Use is proof.



**THE BANNER ELECTRIC
COMPANY**

YOUNGSTOWN, OHIO

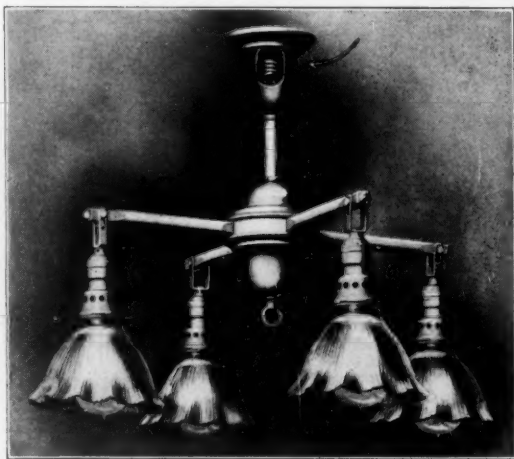


In writing to advertisers, mention "Selling Electricity"

We are ORIGINATORS not Imitators of Central Station Anti-Vibratory Folding Units

SHIPPED
FOLDED, WIRED
AND
ASSEMBLED

NO LOOSE
OR
LOST PARTS



NO WORKSHOP
REQUIRED

INSTALLATION
CHARGES
INSIGNIFICANT

21,000 Installations

Representing Over

A Million Dollars

In Mazdalier (Tungstolier) Units

See them at our booth—No. 31

THE TUNGSTOLIER CO.

CLEVELAND, OHIO

NEW YORK

DALLAS

TORONTO

In writing to advertisers, mention "Selling Electricity"

An Illuminating Comparison

A Story Without Words



Old Fixture Way

**Complete Workshop
Required**

**Pieces and Parts Needed
in Stock**

Iron Pipe Fittings

**SHOP LABOR
CHARGES**

?

New Tungstolier Way

No Workshop Required

No Stock Pieces

No Lost Parts

No Iron Pipe

**SHOP LABOR
CHARGES
NONE!!**



THE TUNGSTOLIER CO.

CLEVELAND, OHIO

NEW YORK

DALLAS

TORONTO

In writing to advertisers, mention "Selling Electricity"

H. M. Byllesby & Company

Engineers

Managers

Design

Construct

Operate

Electric Light Plants

Natural Gas Systems

Artificial Gas Systems

Interurban Railways

Street Railways

Water Power Plants

Water Works

Transmission Systems

Irrigation Systems

Drainage Systems

Examinations and Reports

CHICAGO

In writing to advertisers, mention "Selling Electricity"

"The first eight ads of the Saturday Evening Post Series"

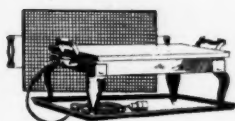


is the title of a book that every central station man should read. It is No. 17 of our series of central station advertising books and relates to a national advertising campaign that will bring Westinghouse electric fans, irons and toaster-stoves to the attention of seven million readers every week during the summer season.



This campaign is of interest to every central station for two reasons: First, it will directly benefit every central station handling these devices by increasing sales. Second, it will popularize the use of electric current in the home through the broader introduction of these devices of established reputation.

The 8-inch Westinghouse fan possesses every good feature that a fan for home use should have.



The Westinghouse Electric Iron presents the advantages of the electric method in a way that convinces every housekeeper who tries it. The Toaster-stove, which is both a toaster and cooker, stands without a rival in its field.

Send for the book and ponder the significance of this campaign to you—then do the logical thing—stock up

Westinghouse Electric & Mfg. Co. Pittsburg, Pa.

Sales Offices in All Large Cities

In writing to advertisers, mention "Selling Electricity"

A Million Dollar Ten-Story Building

ablaze with electric lamps from top to bottom on two street sides is the Denver Gas and Electric Company's addition to the "City of Lights," as Colorado's capital is known the world over. The building, one of the two first "sky-scrapers" in the city, and now nearly completed, is perhaps the only general office structure erected by any company with its principal architectural feature the exterior lighting.



Hardly was it well under way before plans were made for erecting large buildings on the other three corners, showing the value to a business district of acquiring a concern that does business with thousands, most of whom call at the office at least once a month.

An idea of the exterior display is gained from the figures. There will be 7,740 four-candle lamps, 300 twenty candle-power, 126 thirty-two candle-power, 236 forty-eight candle-power and 37 two hundred candle-power, with an additional 40 two-hundred candle-power in the windows, and 275 twenty candle-power lamps for bulk-head window lighting. A special feature will be fifteen

arcs on a new design of bronze fixtures. The sign on the corner of the roof will contain 1000 four candle-power lamps. This gives a total of 76,020 candle-power on the exterior. The construction cost on the exterior lighting is \$25,000.

Current consumed in this lighting is sufficient to supply the average town of 20,000 inhabitants.

One of the other features of the new building will be the demonstration room, which will be the largest and most complete in the country. It will have a seating capacity of 500, and will be equipped with every comfort. There will also be a completely furnished and equipped five-room home. This will contain every known gas and electric appliance suited to domestic uses, perhaps the first feature of the kind in the country. The lighting of the rooms used by the office force will be indirect throughout, giving an even light in all parts of the rooms.

HALF A MILLION DOLLARS A YEAR FOR



CO-OPERATION

PROGRESS

QUALITY

IN LAMPS AND ILLUMINATION

The National Electric Lamp Association and its Member Companies invite the attention of the Central Station industry to the work which they are doing to increase the scope and profits of the electric lighting business.

Five hundred thousand dollars are being spent by this Association in 1910. Are you getting your share of the benefits? See next pages.

National Electric Lamp Association CLEVELAND

The Banner Electric Co.
Youngstown, Ohio

The Brilliant Electric Co.
401 Electric Bldg.,
Cleveland, Ohio

The Bryan-Marsh Co.
521 Mill St.,
Central Falls, R. I.

The Bryan-Marsh Co.
315 Dearborn St.,
Chicago, Ill.

The Buckeye Electric Co.
321 Cuyahoga Bldg.,
Cleveland, Ohio

The Buckeye Electric Lamp Co., S. A.
Ave. 16 de Septiembre No. 5
Mexico, D. F.

The Cleveland Miniature Lamp Co.

1806 E. 45th St.,
Cleveland, Ohio

The Colonial Electric Co.
Warren, Ohio

The Columbia Incandescent Lamp Co.

2115 Locust St.,
St. Louis, Mo.

Economical Electric Lamp Co.
25 W. Broadway
New York City

The Fostoria Incandescent Lamp Co.
Fostoria, Ohio

The General Incandescent Lamp Co.
206 Electric Bldg.,
Cleveland, Ohio

The Jaeger Miniature Lamp Manufacturing Co.
New York City

Moline Incandescent Lamp Co.
Moline, Ill.

Monarch Incandescent Lamp Co.
481 Wabash Ave.,
Chicago, Ill.

Munder Electric Co.
Springfield, Mass.

New York & Ohio Co.
Warren, Ohio

The Shelby Electric Co.
Shelby, Ohio

The Standard Electrical Manufacturing Co.
Warren, Ohio

The Sterling Electrical Manufacturing Co.
Warren, Ohio

The Sunbeam Incandescent Lamp Co.
500 South Clinton St.,
Chicago, Ill.

The Sunbeam Incandescent Lamp Co.

463 West St., N. Y. City

The Sunbeam Incandescent Lamp Co., of Canada, Ltd.
225 Dufferin St.,
Toronto, Ont., Canada

The Warren Electric & Specialty Co.
Warren, Ohio

Some facts about co-operative
advertising of Mazda Illumination

See next page 

CO-OPERATION

A most complete and effective campaign of co-operative advertising, designed to increase the market for Mazda Illumination, has been inaugurated and is offered to the Central Station industry on a very attractive basis. This campaign consists of the highest grade of booklets, personal letters and leaflets, prepared by experienced advertising experts for distribution by Central Station companies to their prospective customers. The material offered is not in any sense "stock advertising"; it has been written to fit specific local conditions and among the specimens prepared will be found material which will cover the special needs of any lighting company.

Also a special campaign for local newspapers has been prepared and any Member Company will be glad to furnish cuts and copy for use by Central Station customers.

This campaign is offered to Central Stations by Member Companies of the National Electric Lamp Association, any of whom can show the elaborate book of specimens and explain the co-operative plan. Central Station managers desirous of increasing either residential or commercial lighting will do well to examine both plan and specimens critically with a view to sharing in the benefits of this extensive campaign. Address any Member Company (see list on previous page).

Efforts spent to advance the quality of lamps of Member Companies.



National Electric Lamp Association
CLEVELAND

QUALITY

In no branch of industry in the world, perhaps, is more attention or greater expense involved in the advancement of quality, than in the manufacture of incandescent lamps.

Member Companies of the National Electric Lamp Association spend annually a large proportion of this one-half million solely to better the quality of their product. Every bit of raw material is scrutinized with utmost care; every process of manufacture is supervised by high-salaried experts; every lamp is inspected not less than 60 times in the course of its making.

It must be apparent that even a small saving on each lamp manufactured by Member Companies of the National Association would amount to a very considerable sum; nevertheless, it has from the first been the policy of Member Companies of this Association to place quality first among the requirements of their business.

The lamps of Member Companies are to-day recognized as the standard of the world. No manufacturer or group of manufacturers, either in this country or abroad, can show greater excellence. Member Companies of the National Electric Lamp Association would be pleased to explain at length the exclusive facilities which they enjoy for the production of the highest quality of lamps.

Over one-third million is spent in the development and perfecting of the lamps of Members Companies



National Electric Lamp Association
CLEVELAND

PROGRESS

The National Electric Lamp Association maintains Engineering and Research Laboratories which, with their necessary subdivisions, annually expend over one-third of a million.

This great sum is devoted solely to the development and perfecting of incandescent lamps and to the spreading of technical and commercial data concerning the proper and economical use of these lamps.

Scientists of world-wide renown, engineers of the highest standing and experts whose personal experience in the industry dates back to the first commercial incandescent lamp, are employed in the Engineering Department of the National Electric Lamp Association. Every facility in the way of laboratory equipment is at their disposal.

Not only are the 150 engineers in this Department constantly engaged in their own research and experimental work touching every detail of incandescent lamp design and manufacture, but representatives of the Department are constantly in touch with the progress and development of lamp making in Europe and every new discovery is immediately secured for the benefit of American lamp users. To the purchaser of incandescent lamps, this Department represents the most positive assurance of the future as well as present quality of lamps produced by Member Companies of this Association.

Progress is shown forcibly by these few facts: Annual number of lamps manufactured by Member Companies 50,000,000. Manufacturing floor space, 35 acres. Number of employees of the 23 Member Companies, 6,000.

National Electric Lamp Association
CLEVELAND

A 150 H.P. Find for the Central Station

"The power salesman of the lighting company went after the business, but was unable to do anything with the prospective customer because he could show no particular economy. Finally a Nernst lamp salesman got on the job. He learned that the mill had high-grade madras shirtings in delicate tints, and that the direct current arcs previously used were not satisfactory from the standpoint of color-value.

"His demonstration convinced the manufacturer that the glower lamps were what were needed and his arguments finally led to the abandonment of the old direct current equipment in favor of central station alternating current service. Thus the lighting company secured a 150 horse-power customer solely through the influence of the lighting".

Frank B. Rae, Jr., in "Selling Electricity", April, 1910, Page 141

This is an example of what Nernst Lamp salesmen are doing every day. They do it because "co-operation" is their watchword. They get results because they sell the most rugged high-efficiency lamp on the market—the lamp that the factory manager has faith in.

Wouldn't it pay you to get in closer touch with the Nernst representatives in your territory?

**Nernst Lamp Company
Pittsburg, Pa.**

Sales offices in all large cities

In writing to advertisers, mention "Selling Electricity."

Constructive Publicity

Is the community you serve satisfied with your rates, system of charge, service and public policy?

Is it free from prejudice against public service corporations in general?

Does it realize the disastrous consequences of municipal ownership—

And view the questions involved in franchise and city lighting disputes from a dispassionate standpoint?

If you can answer each of these questions affirmatively you are fortunate, indeed.

Otherwise you have not obtained a clear title to the good will of your public.

There is not a community in the United States whose viewpoint and general attitude regarding Public Utilities cannot be changed for the better by a campaign of CONSTRUCTIVE PUBLICITY.

The C. W. Lee Company has conducted most of the successful campaigns of this sort during the past five years.

We are the originators of CONSTRUCTIVE PUBLICITY as applied to public utilities, and possess facilities and an organization that achieve success under the most adverse conditions.

THE C. W. LEE COMPANY
WEST STREET BUILDING
NEW YORK CITY

Wagner Electric

Manufacturing Company, St. Louis, Mo.

SINGLE-PHASE MOTORS

The Wagner Company was the Pioneer

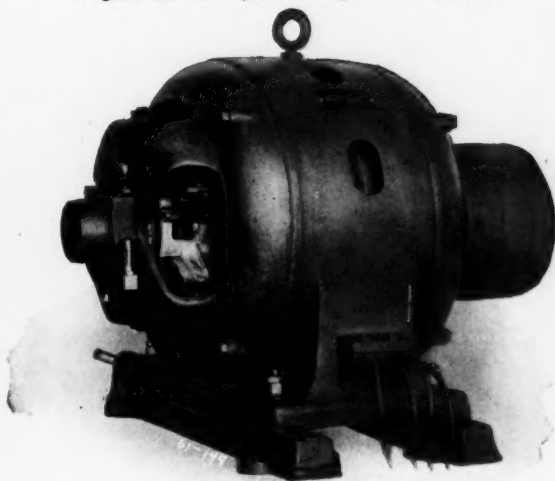
in the development of the commercially successful motor of the single-phase type. For many years it was practically the sole manufacturer of this type and is today the recognized leader in the single-phase field.

For a given starting torque a Wagner single-phase motor disturbs one phase of a polyphase line, from which it takes its entire power, less than the ordinary polyphase motor disturbs every phase.

Polyphase generation with a single-phase distribution has come to be recognized as modern practice.

As alternating current single-phase and polyphase motor specialists, we invite correspondence. Please address the nearest office.

Wagner 20 horse-power Single-Phase Motor



Wagner, Quality

Atlanta	Empire Bldg.
Boston	110 State St.
Buffalo	41-43 East Eagle St.
Charlotte, N. C.	Trust Bldg.
Chicago	Marquette Bldg.
Cincinnati	First National Bank Bldg.
Cleveland	New England Bldg.
Denver	Ideal Bldg.
Detroit	Union Trust Bldg.
Kansas City	1113 Wyandotte St.
Los Angeles	326 S. Los Angeles St.
Minneapolis	Security Bank Bldg.
Montreal	Bell Telephone Bldg.
New Orleans	205 Chartres St.
New York	50 Church St.
Philadelphia	Real Estate Trust Bldg.
Pittsburg	Lewis Bldg.
St. Louis	6400 Plymouth Ave.
San Francisco	Balboa Bldg.
Seattle	Pacific Bldg.
Sioux City	515-517 5th St.

In writing to advertisers, mention "Selling Electricity"

Doherty Operating Company

Organized originally to enable the highest degree of applied operating ability in the gas and electric properties controlled by Henry L. Doherty & Company.

The Doherty Operating Company is an organization of practical and experienced Operators, a corps of Specialists and Experts.

Will undertake the management of other properties only upon a contingent basis of profit.

Correspondence invited and treated confidentially.

Doherty Operating Company

60 Wall Street, New York

In writing to advertisers, mention "Selling Electricity"



A knob on the spindle enables the oscillating mechanism to be thrown in or out of action instantly.

At the Push of a Button---

You can convert the G. E. Oscillating Fan Motor to a stationary type (or vice versa) while the motor is running. This is a feature which in connection with the quiet oscillating movement at *all* speeds makes it the best seller on the market.

G. E. Oscillating Fan Motors

for 1910 are provided with a *geared* oscillating mechanism. This insures a uniform and positive action, in marked contrast to the results obtained from motors in which the oscillation is dependent upon the effect of blades or disks placed in front of the fan blades.

Stiff and Effective Guards

The guards are heavy, strong and durable, consisting of two outer rings connected by cross wires which converge toward a center plate. The cross wires are twisted around the outer rings and center plate and then set under heavy pressure. No solder is used.

No Angular Adapter Needed

G. E. Oscillating motors can be adjusted for either desk or bracket use without the addition of any parts.

Prepare for Summer's Campaign

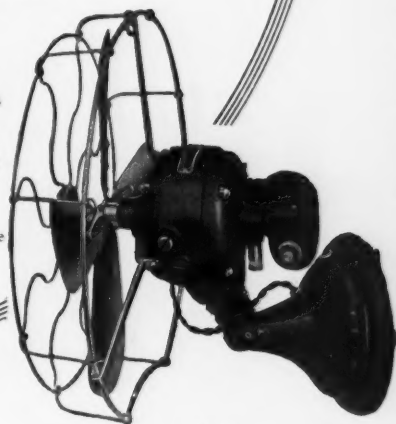
We can place at your disposal a complete line of fan motors unequalled in attractiveness, convenience and reliability.

Send for Bulletin 4719 and make your selections now.

You are sure of a prompt delivery from the nearest local office.

All standard voltages and frequencies

8 in. Desk, Bracket and Telephone Booth. 12 in. Six Blade residence. 12 and 16 in. Standard Desk and Bracket. 12 and 16 in. Oscillating, Ceiling and Counter Fan Motors. Ventilating Fans.



2442

General Electric Company

Largest Electrical Manufacturer in the World

Principal Office : Schenectady, N. Y.

SALES OFFICES IN ALL LARGE CITIES

In writing to advertisers, mention "Selling Electricity"



Motor Profits

Before Manufacturers spend much money for electrical equipment they want to know what interest they will make on the investment. This you can determine quite accurately for them before they invest a cent.

Anything that reduces their unit cost of production means additional profit and here is where

Fort Wayne Motors Prove their Superiority.

We will be glad to furnish you with guarantee performance curves for any of our motors and if you will send us your customers' specifications our engineers will solve their individual problems and recommend sizes, etc.

With this information you can easily figure out how much they will gain by installing electric drive in their plants. There are a great many advantages also on which it is hard to place a *money* value, such as cleanliness, convenience of locating machines regardless of power supply, ease of control, automatic operation, economy of floor space, elimination of belts and pulleys, increased safety and freedom from accidents to employees, more light and less noise.

These points apply in general to almost all motors but there are particular features about Fort Wayne Motors that make them the *best purchase in the market*. Anyway it will pay you to send for our Bulletin "Motor Drives." It's free.

FORT WAYNE ELECTRIC WORKS

"Wood Systems"

1603 Broadway,

FORT WAYNE, INDIANA

Branch offices in most large cities



MB



A Really Good Library Table Reading Lamp

REQUIREMENTS?

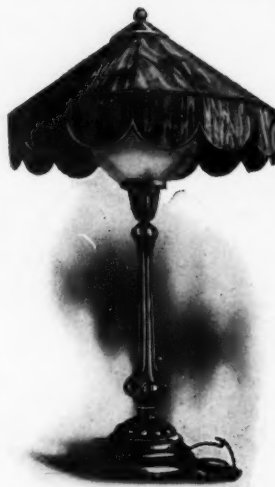
Is your library lamp satisfactory to *read by* as well as *look at*?

Does it "harmonize splendidly" with its surroundings but give a dim, insufficient light?

Or do you get a glare that hurts your eyes?

Are you looking, like hundreds of others for something better?

The G-M LAMP
(Patent applied for)



SERVICE!

The G-M Lamp gives ample illumination on the reading page.

The G-M Lamp has a brilliant light evenly distributed by a diffusing hemisphere.

The G-M Lamp produces a wide zone of soft, useful light.

The G-M Lamp is made in several styles and finishes — all artistic in design.

The intensity and quality of light is controlled by a switch at the base.

The benefits of correct lighting have been demonstrated in thousands of stores, factories, shops and offices. Bring them to your home.

ELECTRIC MOTOR AND EQUIPMENT CO., NEWARK, N. J.

In writing to advertisers, mention "Selling Electricity"



SHE doesn't have to call the
hired man to move the

Everson Vacuum Cleaner

The only real portable cleaner
with a high Effective Vacuum

Weight 35 lbs. List Price \$80.00
with 12 Tools.

$\frac{1}{2}$ -H. P. Holtzer-Cabot Motor.
Indestructible Vulcanized Fibre Case, non-
conductor of electricity.
Safety valve to prevent damaging motor.

SIMPLE SAFE SUFFICIENT

EVERSON MFG. CO.

34 Oliver Street

Boston, Mass.



D 1487 Black Iron

Fixtures that Sell

Also harmony in design. And
if you will co-operate with us, we
will help you get the business.

Special designs furnished upon
application.

Get your name on our mail-
ing list and we will send, postage
paid, our latest booklet in colors
of straight electric show fixtures.

R. WILLIAMSON & CO.

Manufacturers of

**Electric and Combination Fixtures
and Art Glass Domes**

Washington and Jefferson Sts.,

CHICAGO, ILL.

Largest fixture factory and lighting depot in the world

In writing to advertisers, mention "Selling Electricity"

The
United Electric Light and
Power Company

Alternating Current Exclusively

Light, Heat and Power

Borough of Manhattan
City of New York

MAIN OFFICE
1170 Broadway, New York

BRANCH OFFICE
519 West 146th Street, New York

In writing to advertisers, mention "Selling Electricity"

9 of the CONVENIENCES afforded by a

BENJAMIN PLUG CLUSTER

*The Household Device that
gives you two outlets for
one. No wiring is necessary.*

BENJAMIN

Simply screw into the socket and connect your Fan, Water Heater, Toaster, Vibrator, Chafing Dish, Portable Lamp, Flatiron, Sewing Machine, Curling Iron. You can still burn your lamp at same time. It doubles the capacity of your socket by doing the work of two.

For sale by all Electrical Dealers
or sent postpaid on receipt of price **75¢**

BENJAMIN ELECTRIC MFG. COMPANY
507 W. Jackson Boulevard, Chicago

The "IMPERIAL"

A Portable Vacuum Cleaning Machine combining efficiency, practicability and economy.
Can be attached to any electric light socket.



"The only High-Grade, Efficient Machine on the Market." Guaranteed. A Dividend Payer for Central Stations. Growing concerns and responsible parties wanted as agents. Exclusive territory given. Send for Catalogue and particulars.

Price, \$100.00 Complete.

EMPIRE VACUUM COMPANY,
112 West 30th Street, New York.
District Office: 702 Postal Telegraph Building
Chicago, Ill.

Mott Lamp Posts

STANDARD OF QUALITY
Established 1828



2046 J

Ornamental Lighting Posts for all Purposes

SPECIAL TO CENTRAL STATIONS

We will be glad to co-operate with your New Business Departments and submit special designs for Commercial Lighting Projects.

Send for our New Catalogue

The J. L. Mott Iron Works

118-120 Fifth Ave., New York



To the Makers, Sellers and
Buyers of Electric Current

Visit our booth at *The Fourth Annual
New York Electrical Show* to be held
in the Madison Square Garden, New
York City, October 10 to 20, 1910.

The New York Edison Company
Fifty-five Duane Street

Why Light the Streets?

The Central Station who neglects to give the best street lighting it knows is committing the crime of good business abuse. If he has installed

Sterling Street Series Lamps

he is giving the best possible street lighting, but more than that he is advertising electric light to the total population; he is raising the standard of illumination; he is creating good will and tending toward civic betterment. Good street lighting is made possible with Sterling Mazda Series lamps without increased expense. Get our figures and let us help you in designing proper street lighting. Our engineers are at your service, our experience at your command. Ask.

The Sterling Electrical Manufacturing Company
Warren, Ohio

BRIGHTER BROOKLYN

Throughout the year, the electrical publications are of vital interest and real service to the central station.

The Brooklyn central station is glad of the annual opportunity afforded by Convention Numbers to indicate its appreciation.

**Edison Electric Illuminating Company
of Brooklyn**

In writing to advertisers, mention "Selling Electricity"

SEND FOR CATALOGUE OF OUR NEW TYPE

FLASHERS

The Electric Carriage Call & Specialty Company
173 Christopher Street, New York

BENJAMIN TWO-LIGHT PLUG CLUSTER

For Doubling the
Capacity of Your
Sockets Without
Extra Wiring



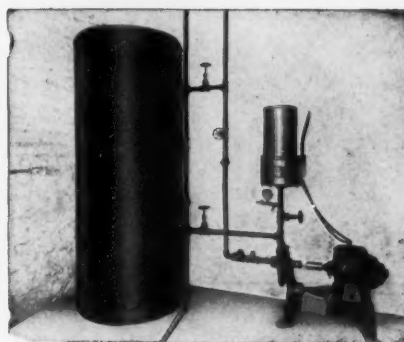
It just screws in—and the work is done.
You have one light, but want two. Or
you want to run an extra wire to another
point for connecting some electrical appli-
ance—fan, heater, curling-iron, flatiron,
chafing dish, etc., and still keep your light
burning. *You need not rewire the place
to do it.*

*Benjamin Plug Cluster Does the Work
of Two Sockets.*

For sale by all Elec-
trical Dealers or
sent postpaid on re-
ceipt of price, 75c.

**BENJAMIN ELECTRIC
MFG. CO.**

507 W. Jackson Blvd.,
Chicago



Electric House Pumps Cellar Drainers and Pneumatic Water Systems

For Homes or Large Buildings

Write for Catalogue

The Chicago Pump Co.

1055 Fulton St.

CHICAGO, ILL.



This double-faced sign is a
READY SELLER
at \$99.00 net to Central Stations

Size 5 ft. x 7 ft.

Electric Letters, Porcelain Enamel
Other Letters, Glass Transparency

HALLER SIGN WORKS (Inc.)

704 S. Clinton Street, Chicago

In writing to advertisers, mention "Selling Electricity"

If Your Neighbor Has Electric Light

and you have not, just step into his house some evening after dark and compare its light with your own. Study each point of convenience, cleanliness, clearness, beauty, carefully and then figure out for yourself if it would not pay you well to have your house wired for electric light this spring.

Call Bell Main 2401

Cuyahoga Cent. 5860

The Illuminating Company

Sales Department:

232 Superior Avenue, N. E.
Cleveland, Ohio

In writing to advertisers, mention "Selling Electricity"

HERE IS OUR MACHINE And our Record

We have sold thousands of

THOR

Electric Home Laundry Machines

and fully one quarter of them have gone into homes previously not connected.

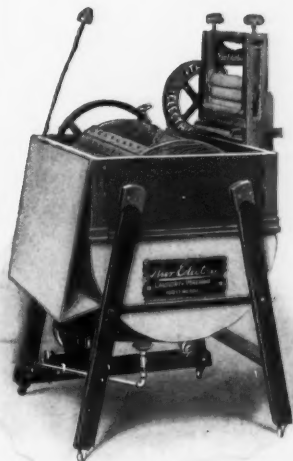
That means that THOR machines *appeal* to housekeepers and sell themselves against obstacles.

If we can sell them, so can you.

Hurley Machine Company

CHICAGO:
Monroe & Clinton Sts.

NEW YORK:
Flatiron Building

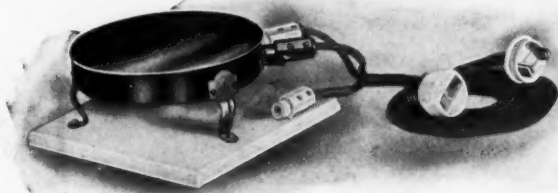


A DISC WITH A DIFFERENCE NOT JUST ANOTHER

EXCEL Electrically EXCEL Mechanically EXCEL Commercially

Ask your salesmen how many 4½-inch disc stoves they could place at \$3.75 each. Write us for our discounts and figure out your profit before the meter gets started on the new load.

**QUICK
HEATERS**



**QUICK
SELLERS**

4½ in. diameter, \$3.75 each. 6 in. diameter, \$5.00. 8 in. diameter, \$8.00. A new sales plan with a genuine guarantee

Excel Electric Heating Company

52 Lawrence Street, Newark, N. J.

C. S. Knowles, Boston, Mass.
Hughson & Merton, San Francisco, Cal.
American Electric Company, St. Joseph, Mo.

J. Lewis Davis, Dallas, Texas
E. P. Boss, Buffalo, N. Y.
Harmer & Co., Portland, Ore.

Consolidated Engineering Co., Denver, Col.
F. D. Rusling, Indianapolis, Ind.
The Lowe Electric Company, N. Y. City

In writing to advertisers, mention "Selling Electricity"

HOLOPHANE ILLUMINATION

A monthly publication issued by the Holophane Company to promote a higher standard of artificial lighting. During the coming months, it will contain articles on

Commercial Lighting

Characteristic examples of the proper methods of illuminating stores and offices, both large and small, elaborate and economical.

Window Lighting

Display window installations which combine sensible economy with the best possible advertising value to the merchant.

Residence Lighting

This is a class of business heretofore neglected by central stations. The Holophane Company will bring to this subject the same initiative that has made its products the standard equipment for commercial lighting.

Industrial Lighting

An important factor in the illumination field and one in which this Company has done great service during the past year.

"HOLOPHANE ILLUMINATION" will be sent free of charge to any one in the Central Station Industry.

HOLOPHANE COMPANY

SALES DEPARTMENT

NEWARK, OHIO

New York

Chicago

San Francisco

Boston

In writing to advertisers, mention "Selling Electricity"

, 1910

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Patent Applied For

This is the new
Guaranteed
Approved
A. & W.
Time Switch

SIMPLE DURABLE ACCURATE

THE new A. & W. approved Time Switch is, first of all, accurate and durable. We have embodied in it a number of new features and we stand back of it with our reputation. Enough said.

As every central station business-getter knows, a reliable time switch (that means the A. & W.) opens up a big market for signs, window lighting, apartment house hall lighting, the lighting of private grounds, etc., in territory where it is impossible or impracticable to employ patrolmen. Even in congested districts, the A. & W. guaranteed Time Switch is cheaper, more reliable and more accurate than patrol service.

Write for Bulletins which give details of construction, prices and discounts. Even though you may not need it now, you should have in your files full information on the *one* reliable Time Switch.

THE A. & W. ELECTRIC SIGN CO.
CLEVELAND, OHIO

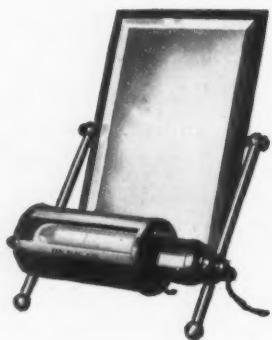
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on circuit and one more man closer knitted to the
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adjust to any angle. The finish can be
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